The Value of the Dutch Basic Qualification

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Preface

The Max Goote Expertise Centre is active in the field of vocational education & training and adult education. It is part of the University of Amsterdam. Its main objectives are:

- **making accessible national and international knowledge in the field of vocational education, training and adult education;**
- **knowledge analysis;**
- **advancing the creation of knowledge;**
- **promoting debate on the creation and use of knowledge.**

The outcomes of the projects and activities of the Max Goote Expertise Centre are made available to the different parties involved in the development of the system of vocational education, training and adult education.

The performance and outcomes of the system of vocational education have always been a major research interest of the Max Goote Expertise Centre. This runs parallel with a paradigm shift in the allocation of public funds, where the emphasis has shifted from detailed funding rules at the start of the policy process to reward mechanisms on the basis of manifest outcomes at the end of the process. The increasing emphasis on measurable performances not only applies to schools or educational institutions, but also to national educational systems or subsystems. At that level, the question can also be asked whether public funds are used in an effective and efficient way. To answer that question, an international comparative framework, is often indispensable.

Just recently, the Max Goote Expertise Centre (in collaboration with Twente University and the Research Centre for Education and the Labour Market) concluded a research project on the value of the Dutch basic (or basis) qualification. Research question was: *what is the value of Dutch ISCED 3C short programmes (in Dutch terminology WEB level 2 programmes) i.e., the Dutch basic qualification, in the national and international context?*

In terms of Dutch educational and labour market policy, the basic qualification is considered to be the minimum education level needed in order to make an adequate start in the labour market or pursue further studies. It is a concept that has a major social impact, summed up in the credo that no student should leave the educational system without one.
In the international arena, one is less convinced of the value of our basic qualification. In the ISCED, programmes at this level come under the category of ISCED 3C short programmes, short programmes with only limited vocational orientation that fall below the level regarded as adequate for entry to the labour market. In that sense, people holding this degree, are considered as

premature school leavers. Given the fact that the basic qualification is a cornerstone of Dutch educational policy and that about 10% of the Dutch labour force holds this degree, this was a difficult message for Dutch policy makers.

This led the Ministry of Education, Culture and Science to launch this research project on the value of the basic qualification with Germany, France, the UK and the Czech Republic as comparison countries. The research question was approached in several ways; international comparison of educational programmes, benchmarking through independent assessment of skills and comparison of labour market outcomes.

Based on the results of the three studies undertaken, it is impossible to conclude otherwise than that the Dutch starting qualification leads nationally to good opportunities in the labour market. The Dutch basic qualification also proves itself in international programme comparisons to comprise adequate levels of difficulty and intensity, productive of a relatively high level of general skills. All these are sufficient arguments in themselves for a reconsideration of the classification of the Dutch starting qualification at the 3C short level of the ISCED, at least if this level continues to be regarded as one that provides insufficient preparation for the labour market.

The principal argument for classifying the basic qualification programmes at the ISCED 3C short level, was the fact that these were programmes without entrance requirements. As a result of recent changes to the Law on Vocational Education (WEB), however, these programmes are no longer without entrance requirements. This being the case, the requirements for level 3 completion have now been met. What this amounts to is that the problem of the value of the Dutch starting qualification has been "administered away" to a certain extent. After all, as a result of the new entrance requirements, the level 2 programmes in the ISCED can now be classified at a higher level. Even so, it would be a highly unsatisfactory situation if the value of programmes, particularly from the international comparative perspective, were to be allowed to rise or fall on administrative grounds. This study remains valuable in that respect: it is not only the change in the law that leads to a higher valuation for the Dutch level 2 programmes, there is also now more than enough empirical evidence that these programmes deserve a higher valuation. Empirical evidence of this kind will probably need to play a greater role in the valuation of programmes in internationally comparative classifications such as the ISCED. That is not easy to achieve, and it is here that the contours of a future research programme begin to appear.

Willem Houtkoop
Director Max Goote Kenniscentrum bve

1 The value of the Dutch basic qualification: introduction

1.1 The occasion for the study

In terms of Dutch educational policy, the basic qualification is considered as the minimum educational level needed in order to achieve an adequate start in the labour market or pursue further studies. The basic qualification is a concept that has major consequences for society in principle, consequences summed up in the social creed in that no pupil can be permitted to leave formal education without a basic qualification. Similarly, in preparing young people for the labour market and in training adult employees, the basic qualification is regularly instanced as the minimum requirement, though with less consequences for policy.

In the vocational education context, the basic qualification equates with Basic Vocational Training *(basisberoepsopleiding - BBO)*, i.e. a course of education that coincides with level 2 of the qualifications structure set out in the Adult and Vocational Education Act *(Wet educatie en beroepsonderwijs - WEB)*. The qualification can be earned by following a Vocational Training Course *(beroepsopleidende leerweg - BOL)* or the Apprenticeship Day Release Course *(beroepsbegeleidende leerweg - BBL)* in Secondary Vocational Education *(secundair beroepsonderwijs - SBO)*. What it means in overall terms is that after leaving Pre-vocational Secondary Education *(voorbereidend middelbaar beroepsonderwijs - VMBO,* formerly *VBO* and *MAVO)*, a further course of vocational education with a minimum duration of two years must be followed via the BOL or the BBL (formerly the Two Year Short Vocational Education Course *(tweejarig kort middelbaar beroepsonderwijs - KMBO)* or the Elementary Apprenticeship Training Programme *(primair leerlingwezen - LW))*. The corresponding level in the Standard Educational Classification *(Standaard Onderwijsindeling - SOI)* is SOI 4.1. A completed Senior General Secondary Education *(hoger algemeen voortgezet onderwijs - HAVO)* or Pre-university Education *(voorbereidend wetenschappelijk onderwijs - VWO)* programme is also regarded as a basic qualification, but plays no role in discussions of the value of the basic qualification as such.

In the international programme classification (International Standard Classification of Education; ISCED), basic vocational training (or the equivalent programmes that predated the WEB) is classified at ISCED level 3 (upper secondary education). This was also the case under the old ISCED classification during the early years of the new ISCED'97 classification.
The Netherlands has recently started providing more detailed information on its ISCED 3 category educational programmes to international organisations

like the OECD and Eurostat. One of the effects of the new procedure has been to allow more justice to be done to the new classification levels for vocational education under the WEB. Where basic vocational training and equivalent programmes are concerned, it has meant categorisation under ISCED level 3C short, a refinement within the overall ISCED 3 level. According to the OECD system, as used for instance in *Education at a Glance*, programmes at this level however are viewed as short duration programmes with only a limited occupationally targeted orientation and completion of these programmes does not amount to successful completion of higher secondary education. In terms of the OECD system, they do result in "level 3 completion". Programmes only qualify as "level 3 completion" if the they allow students to go on to further studies (to ISCED 5), or prepare them for the labour market and have a minimum duration of three years. This duration requirement was later qualified as "a programme at least one year shorter than a 3A, 3B or 3C long programme". Since ISCED 3C short programmes are not regarded as fully fledged programmes at the ISCED 3 level, students who have completed these courses are henceforth essentially to be regarded as premature school-leavers. The OECD regards the completion of a fully fledged programme at ISCED level 3 as a minimum requirement for entry to the labour market. This entails that programmes at level 2 of the qualifications structure, i.e. the Dutch basic qualification, cannot be recognised as such by the OECD. The fact that an exception is made for British and French programmes at the ISCED 3C short level is striking in this context. These programmes are regarded as constituting "level 3 completion" in the countries concerned.

The provision of more detailed information by the Netherlands has therefore entailed a number of consequences for the presentation of Dutch data in international comparative educational indicators. Firstly there is a difference in interpretation between the concept of the basic qualification in the Netherlands (the educational level regarded as a minimum in order to make an adequate start in the labour market) and the "level 3 completion" concept arising from the OECD system, which holds the implicit inference that it constitutes minimum level for entry into the labour market. The accuracy of this assumption is in fact a point for discussion. Ten percent of the adult population (aged 25-64) in the Netherlands have now become "non level 3 completers" and thereby premature school-leavers due to a more differentiated provision of data. From the policy perspective, this is a difficult pill for the country to swallow. What is more, it results in a major discontinuity in the presentation of Dutch data in *Education at a Glance* for example.

The situation outlined above gave rise to a request for research on the part of the Ministry of Education, Culture and Science (OCW), to centre on the following research question:

What is the "value" of the Dutch level 2 programmes, or in other words: what is the "value" of the Dutch basic qualification in both the national and international context?

1.2 Research plan

A number of approaches were adopted in order to answer this question, which in combination are capable of providing a good picture of the value of the Dutch basic qualification:

- verification of the allocation of educational programmes by Statistics Netherlands (CBS);
- international comparisons of programme duration, content and difficulty;
- benchmarking by means of independent skill assessments (International Student Assessment Programme (PISA), Third International Mathematics and Science Study (TIMSS), International Adult Literacy Survey (IALS));
- comparison of the external yield of level 2 programmes with programmes ranking immediately below and above, in terms of students going on to further study, work opportunities and earnings.

At the request of the Ministry of Education, Culture and Science, the countries initially selected for international comparative purposes were Germany, France, the United Kingdom (England) and the Czech Republic. All of these countries have adequate numbers of programmes at this level. Germany, France and England moreover are neighbouring countries that are important to the Netherlands for economic and other reasons. The Czech Republic, interesting as a potential new member of the European Union (EU) also has a labour force with a relatively high level of skills (according to the IALS data). We wish to record at this juncture that certain elements relating to the selection were adjusted during the course of the study in line with the quality of the data and its availability.

1.2.1 Verification of the allocation of educational programmes by Statistics Netherlands

The change in the evaluation of level 2 programmes is in the first instance the consequence of the supply of more differentiated data by Statistics Netherlands. Investigated will be the question of what programmes have now ended up in the ISCED 3C short category and the criteria used for this reclassification. Statistics Netherlands has already made a start in this direction and has found that in a number of cases there have indeed been instances of incorrect classification. Statistics Netherlands was requested to report on these activities. There has also been a more principled discussion on the allocation of

vocational education programmes at level 2 of the qualifications structure, due among other things to the recent tightening up of admission requirements. Reports will also be made regarding this topic.

1.2.2 International programme comparison

The purpose of this component of the project is to gain insight into the intrinsic differences and similarities between ISCED 3C short programmes with a duration of three years or less in the Netherlands, France, Germany, the Czech Republic and the United Kingdom. An affiliation for this component of the project has been made with work carried out in the context of the "Upper secondary education classification study" by the *Onderzoekcentrum Toegepaste Onderwijskunde* (OCTO) [Applied Educational Expertise Study Centre] of the University of Twente in the Netherlands, commissioned by the OECD. In this research, which took place between July 1999 and March 2000, the "upper secondary education systems" of the participating countries were compared with respect to the following components:

- programme orientation (general, pre-vocational, occupational qualifications);
- "purpose" for which the programme prepares (further study or labour market);
- duration of the programme and cumulative educational duration (including i.a. typical participant age range, study year);
- position in the national qualifications structure (for instance, is it the first ISCED 3 qualification or is it a further ISCED 3 qualification that requires an earlier ISCED 3 qualification as an entrance requirement?);
- the study arrangements (school-based, work placement, study-work combinations).

A comparison of ISCED 3 short programmes as regards these aspects provides the first indication of possible differences/similarities in the duration, content and degree of difficulty of the programmes. A comparison of this kind is hardly adequate in the context of this research however. Not only would the data available from the OECD classification study referred to need to be brought up-to-date, supplementary data would also be needed in order to assess the "difficulty" of the programmes and in particular their orientation toward the labour market. The main considerations that come to mind here are:

- the structuring of the content of programme in terms of the percentage of the total curriculum time spent on general education subjects (or modules) and occupationally orientated subjects (or modules);
- actual time spent or number of lesson hours (or practical training hours) per week;
- the ratio between school learning, practical training within the school and gaining practical skills in a working situation;

- flexibility/moduling (especially regarding as regards the extent to which participants can determine the content of their own educational programmes based on their own preferences);
- the de facto admission requirements (i.e. not overall previous educational requirements as set out in the ISCED mappings, but previous educational qualifications participants have generally on moving to the relevant ISCED 3C short programmes);
- outflow data regarding participant destinations (what section of students flows directly into the labour market, what section goes on to further study).

Experience gained in the OECD classification study (as also in the classification study carried out by EU) shows that it is difficult to collect this kind of detailed data for all ISCED 3 programmes. Attention was certainly paid to the ratio between in-school and out-of-school learning in the OECD study referred to for instance, but the statements able to be made regarding this breakdown necessarily remained superficial. On the one hand there appeared to be differences between programmes and specialisations. There was insufficient latitude within the classification study referred to in order to allow the investigation of certain programmes (capable of being compared between the participating countries) with the aim of gaining further light on this point. On the other hand there also seemed to be instances of qualifications that could be gained by a number of different routes, the specific learning route taken being itself decisive for the ratio between in-school and out-of- school learning. Here, similarly, there was insufficient latitude to go into the issue at greater depth.

The following approach was used so as to arrive at a comparison of ISCED 3C short programmes in the countries named. A provisional comparison based on available material was made in the first phase, which had the virtue of providing a clear idea of the data still missing and the data that needed to be brought up-to-date on the one hand and which on the other hand formed the basis for the selection of a set of (content) related educational programmes in the countries concerned, allowing these to be subjected to detailed analysis. The material available included the following:

- the country descriptions drawn up in the context of the OECD classification study and the classification study carried out for the EU;
- a study for Cedefop coordinated by Cinop on the classification of vocational education programmes and programme levels (in which countries including the United Kingdom, Germany, France and the Netherlands participated);
- the recently published *Key Data on Vocational Education and Training* (a joint undertaking by Cedefop and Eurostat).

Based on the general and provisional comparison, a set of (content) related programmes from the five countries was selected, which was then subjected to analysis.

Given that allocation of programmes to the various ISCED categories always carries with it a certain national interpretation, descriptive material for these programmes was also compiled from "adjacent" programmes at the ISCED 2, ISCED 3 long, ISCED 3B and ISCED 3A levels.
This approach was adopted due to the fact that, as noted above, experience gained in the OECD classification studies had shown that it is fairly difficulty to obtain detailed data on all programmes. This was certainly true as regards the aspects thought necessary in order to allow statements to be made regarding the "difficulty" of the programmes and their labour market orientation. The necessary data (including updating data at the system level and the detailed programme data) was collected during this phase of the study by means of interviews with the relevant experts and investigation of localised sources.

1.2.3 Benchmarking by means of independent skill assessments (PISA, TIMSS, IALS)

Although this is a "royal road" in principle, it is a road not very easy to follow at the present time. Except for the *TIMSS, The Final Years* (1998) study, PISA and TIMSS concern themselves with younger age groups.
The IALS study (International Adult Literacy Survey) offers better perspectives. The objective of the IALS study is to investigate the extent to which adults in the countries participating in the study have the ability to read and understand written information relevant to them in their day-to-day environments. This set of skills is described as "literacy" or "functional literacy". The formal definition is as follows: "The ability to use printed and written information in order to function within society, to achieve individual goals and to develop individual knowledge and prospects." The IALS study has now been carried out in 20 countries, including the countries selected for the present study, with the single exception of France. The resulting database allows transnational and national comparative studies to be made at greater depth.
The problem however is that IALS is based on relatively small national samples, and that it brings to light little differentiation within the ISCED 3 (vocational) educational category, especially as regards the international dataset. The IALS data moreover relates to adults, whose skill levels are determined by factors quite additional to the educational programmes completed in the past. The data however is capable of providing a rough indication of the relative value of vocational education programmes at the ISCED 3 level. It was decided for these reasons that a comparative analysis based on the IALS data would be carried out in the selected countries. Use would be made of national data sets wherever possible, since these often contain more refined educational variables than the international dataset.
It would be possible to build more accurate educational variables into the ALL tests (Adult Literacy and Life Skills, the successor to IALS).

1.2.4 Comparison of the external yield of level 2 programmes with programmes immediately above and below in terms of students going on to further studies, work opportunities and earnings

The task of putting the "value of a basic qualification" concept into effect is interpreted in this part of the project as the value of a programme in terms of the access options it provides for further studies, work opportunities and quality of employment (including earnings). The focus is therefore on programme yield, not programme content. It is important to make this distinction, since any two programmes may differ as regards content, but have the same yield, and vice versa. By placing the emphasis on yield it is implicitly assumed that programmes aimed at providing a basic educational qualification must at least generate certain yields.

The job of establishing the value of the Dutch basic qualification can be approached in two ways. On the one hand its value can be determined by comparing it with educational programmes ranked immediately above it (level 3 and 4 programmes) and on the other hand with programmes immediately below it (level 1 and VBO/MAVO). Proceeding from the premise that levels 3 and 4 both provide a basic qualification and VBO/MAVO and level 1 do not, it can then be worked out whether these are more similar to one group of programmes or the other based on the position taken up by the level 2 programmes. Where the value of the basic qualification in the labour market does not differ essentially from programmes that are not regarded as a basic qualification, while there is a clear difference between these programmes and programmes at levels 3 and 4, it can indeed be doubted whether level 2 provides an adequate basic qualification.

A second option for establishing the value of the Dutch basic qualification is that of drawing an international comparison between the relative positions of holders of the qualification and students who graduate from ISCED level 3C short programmes. Once again however, we find ourselves facing the issue of calibration: what exactly is the relationship between the position of the ISCED level 3C and programmes immediately above or below it? The point of reference for Dutch programmes at the ISCED level 3C short are the foreign programmes at ISCED level 3C short, which entails comparison with other programmes at the ISCED 3 level (3A, 3B and 3C long) and programmes at ISCED 2 level.

The research questions now therefore read as follows:

- What is the value of programmes at level 2 of the qualification structure for secondary vocational education in the Netherlands in terms of access to further studies, opportunities for work and quality of work?
- How does this value relate to that of programmes at levels 3 and 4 on the one hand and to VBO/MAVO and level 1 programmes on the other?
- What is the value of Dutch ISCED 3C short programmes in terms of

access to further study, opportunities for work and quality of work when compared to foreign ISCED 3C short programmes?

- How does this value relate to those of other programmes at ISCED level 3 (3A, 3B and 3C long) on the one hand and programmes at ISCED level 2 on the other?

The Education and Labour Market Research Centre *(Researchcentrum voor Onderwijs en Arbeidsmarkt - ROA)* has been carrying out studies among school-leavers in possession of a diploma and graduates from the full range of secondary and tertiary educational programmes since the beginning of the nineteen nineties. The overall target group approached by the research project annually consists of something close to 100,000 school-leavers and graduates and the study results are representative for the different sectors of Dutch education as a whole. The school-leavers and graduates concerned are approached more than a year after completing their courses and asked to complete a written questionnaire. The questionnaire gathers information on transfer to further study and entry to the labour market. Details of the study are reported annually in the School-leavers between Graduation and Labour Market Report *(Schoolverlaters tussen Onderwijs en Arbeidsmarkt verslag)*.

Data from two recent surveys will be used for this proposed section of the study. Those concerned are school-leavers for the school or academic years 1997-1998 and 1998-1999. The data is well-suited in principle for analysis aimed at identifying the value of a basic qualification. There is a complicating factor that needs to be taken into account however. An important change took place during the specific period covered by the study which may have consequences for the yield obtained, i.e. the WEB. It means among other things that the recorded outflow from level 2 programmes during the 1997-1998 school year relates to the old situation (pre WEB), while the outflow for the 1998-1999 school year relates to the new situation (WEB). A statistical correction for this situation will be incorporated into the analysis. 1999-2000 and 2000-2001 school-leavers were included in an analysis conducted at a later date The primary purpose of this analysis was to investigate economic influences. There had been a significant deterioration in labour market conditions since the analysis work carried out earlier.

The study investigated the following key indicators:

- transfer to secondary education and type of secondary education;
- success in secondary education;
- likelihood of obtaining paid work;
- likelihood of obtaining a permanent job;
- likelihood of obtaining a full-time job;
- occupational level of the work obtained;
- connection between job and educational programme completed;
- pay.

For each of these variables it was investigated how level 2 programmes related to VBO/MAVO and level 1 programmes on the one hand and level 3 and 4 programmes on the other. At the same time a distinction was made between programme, educational sector and (where relevant) pre WEB and WEB. Also taken into account were intake differences (as regards age, gender, ethnic origin and previous education) between the programmes.

The so-called Labour Force Surveys (LFS) were also used to place the value of the Dutch basic qualification into an international perspective. LFS data commencing from 1998 is appropriate to the study proposed here, since the ISCED 97 categorisation has been in use since that year. This data has been provided by Eurostat in the form of a combined database in the EU context, which also includes combined data from part of the original, national LFS data (in the case of the Netherlands the *Enquête Beroepsbevolking - EBB*).

Information on the following is available in the LFS:
- participation in (secondary) education and level of (secondary) education;
- the percentage of the population belonging to the labour force;
- the percentage of the labour force with paid work;
- the percentage of the labour force with a permanent job;
- the percentage of the labour force with a full-time job;
- the occupational level of jobs held;
- pay (not available for all member states).

The point of reference for Dutch programmes at the ISCED level 3C short here are foreign programmes at ISCED level 3C short, which entails comparison with other programmes at ISCED level 3 (3A, 3B and 3c long) and with programmes at ISCED level 2. Individual background information relating to age, gender and ethnicity (based on nationality and country of birth) is available in the LFS. These personal characteristics details function as control variables in the analysis.

1.3 Programme classifications

A number of different classifications involving non-uniform terminology are used in the report to refer to programmes, particularly programmes at the basic qualification level, and this can create confusion. In an attempt to set a note of clarity from the start, we indicate the different classifications briefly below. Involved are the ISCED, the SOI and the qualification structure set out in the WEB. The ISCED (International Standard Classification of Education) is a system that allows international comparisons to be made between national educational systems. The revised ISCED'97 is currently in use. The SOI is the standard educational classification procedure used by Statistics Netherlands.

This has recently been revised to become the SOI'98, which takes into account among other things the different levels in vocational education set out in the WEB. Acquaintance with the qualification structure according to the WEB is assumed in the discussion below. Figure 1.1 shows how the different levels in Dutch vocational education have been slotted into the ISCED and SOI classifications. This turned out to be no easy task, especially where vocational education was concerned and the number of sensitivities, including national sensitivities, played a role in the discussions. The entire debate on the Dutch basic qualification for instance centres on a difference of opinion between the OECD and the Netherlands regarding the value of 3C short programmes, albeit that differences of opinion on the SOI classifications are also possible, as is made clear in chapter 6.

Figure 1.1 **The ISCED classification, the SOI classification and the levels set out in the WEB**

ISCED'97		SOI'98	Kwalificatiestructuur WEB
ISCED 2		SOI 3	Assistant programme WEB level 1
ISCED 3	ISCED 3C short	SOI 4.1	Basic vocational programme WEB level 2
	ISCED 3C long	SOI 4.2	Vocational training WEB level 3
	ISCED 3A	SOI 4.3	Middle management training WEB level 4
ISCED 4		SOI 4.3	Specialist training WEB level 4

1.4 Structure

The account of the analysis is preceded by a brief outline description of the policy context of the discussion on the basic qualification and an indication of the size of Dutch population groups currently lacking a basic qualification. A report on these topics appears in chapter 2. Chapter 3 focuses on international programme comparisons, while chapter 4 investigates what skill assessments can tell us about the value of the basic qualification. Chapter 5 throws light on the different analysis projects undertaken in order to map out labour market prospects of people with the basic qualification, both nationally and internationally. Chapter 6 investigates the allocation of programmes by Statistics Netherlands, particularly programmes at the basic qualification level. Chapter 7 sets out the report's final conclusions.

2 Policy background

2.1 Introduction

A policy aimed at ensuring that everyone should gain a basic qualification is one that is hardly likely to be disputed anywhere in today's world. The basic qualification is seen as the essential basis in order to play a fully worthwhile role in society. It is the key to a job (or a good job), a worthwhile income and a worthwhile social position in the community. The term itself was first introduced in a recommendation made by the Rauwenhoff Committee (1990) and the idea was subsequently raised to the status of a policy norm by the Ministry of Education, Culture and Science and by other ministries and scores of organisations in the social field
Although the choice was made for a distinct operationalising of the basic qualification concept in Dutch educational policy (namely a completed vocational education programme at level 2 or a completed HAVO or VWO programme), the intrinsic foundation of the policy is much more differentiated. Nijhof and Streumer (1994) refer in this context for instance to the extremely broad and open definition given by Droste et al. (1993): "the qualification baggage necessary in order to function satisfactorily in society" (op. cit. in Nijhof & Streumer, 1994, p. 12). This chapter of the report goes into the policy debate surrounding the basic qualification, a debate that throws light on this sometimes controversial foundation. This is followed by an impression of the magnitude of the groups that lack the basic qualification. To conclude there is a brief excursus into the international debate on concepts such as a basic or minimum qualification.

2.2 The debate surrounding the basic qualification

The debate in the Netherlands on the question of a minimum basic qualification saw its inception in 1990 as a result of a written recommendation made by the temporary Education-Labour Market Committee at the government's request. The recommendation there is the introduction of a form of legislation that would regulate qualifications. The occasion for the government's request to the committee was a discussion on the problematic connection between education and the labour market that had been in existence in the Netherlands since the end of the nineteen seventies. The Cabinet responded positively to the recommendation at the time in a Cabinet Report. Nearly two years later the Ministry of Education, Culture and Science brought out three memoranda which, directly or indirectly, capitalise on the committee's recommendation. The memoranda respectively addressed the premature school leaving problem, the crucial points of new legislation on vocational education and adult education and recurrent education. This last memoranda took the

form of a discussion document that went more explicitly into the question of a minimum basic qualification. The publication of these memoranda occasioned a good deal of reaction. Although the minimum-basic qualification concept was never subsequently established in law, there is no doubt that elements of it do figure in certain legal measures (e.g. those relating to the Regional Registration and Coordination Centres). There is no doubt either that the discussion is ongoing, as witnessed by the fact that the term basic qualification continually crops up in the guise of an implicit or explicit norm in policy documents.

The Education-labour market: towards a workable pathway report

As already indicated, the term basic qualification was first used in the *Education-Labour market: towards a workable pathway* report by the Rauwenhoff Committee. The report builds on the recommendation made by the Wagner Committee and contains a large number of proposals for improving the nexus between education and the labour market. The committee sets out a number of objectives. Its first objective reads: "More equal participation in education and schooling, expressing itself at the very least in an incentive aimed at securing a sure basic qualification that provides access to working life for all and that serves as the basis for further vocational learning" (op. cit. p. 15). The committee goes on to reveal the level it has in mind: "As a minimum basic qualification, it will have a level comparable to that of the current elementary apprenticeship training programmes (modern apprenticeships)" (op. cit. p. 26). The most important argument the committee proposes for the aim of ensuring that everyone should gain a basic qualification is that of increasing the mobility and flexibility of labour: "Investing in the schooling of unskilled workers clearly represents something of a threshold. The risk of not doing so however is that employees will be insufficiently mobile and flexible in the later stages of their working lives and so will be forced to drop out of the labour market prematurely." (op. cit. p. 26).

The committee's recommendation resulted in widespread debate, but the discussion hardly touched on the level that had been proposed for the minimum basic qualification (the elementary apprenticeship training level), though one or two marginal notes are certainly in order here. The discussion itself focused much more on matters like the division of responsibility and the financing of a basic qualification. The Cabinet response to the report indicated that gaining a minimum basic qualification at the elementary apprenticeship training level would have to be a right but not an obligation. The Cabinet also took the view that obtaining a minimum-basic qualification at the elementary apprenticeship training level was important for young people in initial education and for the unemployed. All that people in work needed was to have an adequate basis for later schooling and they should therefore be in possession of a "transfer qualification" at the VBO/MAVO level.

"A well-prepared start"

The memorandum issued under this title was specifically aimed at reducing the number of premature school-leavers, part of the policy aimed at ensuring a (basic) qualification for all. Schools, it stated, have a primary responsibility to prevent premature school leaving. In addition, the government has a duty to make sure that proper preconditions are in place and to shoulder the burden of guaranteeing (the possibility of) achieving a minimum basic qualification at vocational entry level at least, a qualification corresponding to the elementary apprenticeship training /short secondary vocational education level. Those without a qualification were in a vulnerable position in the labour market. Neither LBO/VBO or MAVO, nor even HAVO and VWO were meant to function as final secondary educational courses. Pupils without vocational qualifications might well find work, but their position in the labour market would be unstable. To be adequately equipped for working life they need more than just an LBO or MAVO certificate.

> "It is vitally important for all young people to gain a vocational qualification, one that not only allows them to make a confident entry into the labour market but that also gives them an adequate basis for further development during their occupational careers. Quite apart from the labour market, higher demands are currently being made on young people and the education that prepares them for many other areas of community life." *(A Well-prepared start; memorandum on premature school leaving,* Ministry of Education, Culture and Science 1993c).

A basic qualification consists not only of a vocational education but also a personal and social qualification. It is also argued that the government has a special responsibility towards that group of young people who encounter a strongly increased risk of leaving full-time education without a written qualification, the group that occupies an unstable position in the labour market and that frequently finds itself in a problematic position in other areas of community life. The memoranda set out the measures the national government intended to introduce in order to achieve "qualifications for all". It later turned out that the policy on premature school leaving came to be regarded as the principal beneficiary of the debate on the basic qualification.

"Keep on learning"

The *Keep on Learning* memorandum was the one that expressed itself most explicitly regarding on the basic qualification concept. The memorandum read: "A good foundation is needed. Only this can serve as the basis for acquiring knowledge in the s later stages of life." (OCW, 1993b, p. 21). The memorandum also highlighted a number of other arguments. Reference was made, for instance, to the importance of equal opportunities for all: "The thinking that lies behind the proposals (…) is that it is a core responsibility of the government to provide every (young) citizen with the opportunity of gain-

ing a qualification that will allow him or her to function in society from a stable position within the labour market" (op. cit., p. 22). The memorandum also underlined the economic and social importance of equal opportunities for all. "When we succeed as a society in allowing as many young people as possible to gain this kind of basic qualification, that not only means better welfare due to better job opportunities and less unemployment, it also means that resources that now have to be spent on benefits, training for the unemployed, provisions for (unemployed) young people and combating (youth) criminality can be deployed by the Cabinet in a more positive way." (op. cit., p. 22).
The memorandum substantiates this economic and social importance by referring to research into the labour market position of premature school-leavers. This research showed that: "The overall conclusion that can be drawn is that the possession of a basic qualification is necessary in order to achieve an acceptable position in the labour market." (op. cit., p. 29). The finding that people with a lower level of education have a significantly weaker position in the labour market than their better educated counterparts is one that offers something to hold onto in the (policy) endeavour to ensure intrinsic support for the goal that everyone should gain a basic qualification. This represents the first time in the round of discussions on the basic qualification that the attempt was made to give the policy objective an empirical basis.

Other issues raised in the *Keep on Learning* memorandum were the introduction of a qualifications norm, the phasing in of an upper age limit for taking advantage of educational courses subsidised by the government, the role of government (both national and local) and educational institutions where the least qualified were concerned and the position of private sector education. The argument for the qualification norm was that participation in society by its citizens is insufficiently guaranteed in the absence of a primary qualification and that participation in adult education is higher among the better educated, a situation which exacerbates the differences between the less educated and the better educated in society. From the use of the term "norm" it would appear that justification for the measure is being sought more from the power of the arguments to be convincing rather than in any obligation to gain or right to gain the basic qualification. Also new in this memorandum was that in addition to elementary apprenticeship training, two years of Senior Secondary Vocational Education *(middelbaar beroepsonderwijs - MBO)* and the HAVO diploma were also regarded as a minimum basic qualification.

Adult and Vocational Education Act (WEB) 1996, Central Issues Memorandum

This memorandum sketched out the main outlines of new legislation. The government had the intention of achieving a variety of changes under this legislation. The first of these was a new Act that would govern both secondary vocational education and adult education. The government's intention with

this new Act was to attempt to develop a single cohesive system of flexible, effective and efficient educational routes within which each individual would find the learning pathway that suited him or her. It was also the government's intention, apart from reducing the school dropout level, to increase the influence of commerce and industry on the nature of secondary vocational education and its content level with the aim of avoiding people missing the boat. With regard to the basic qualification, the memorandum stated:

> "As regards the entitlement of individual citizens to a basic qualification, the Adult and Vocational Education Act associates itself with the results of the discussion on this topic taken up in the "Keep on Learning" memorandum, with the thinking behind the proposals relating to the basic qualification requirement in this memorandum, that it is the task of government to provide the opportunity to every (young) citizen to gain a qualification that will at least allow him or her to function in society from within a stable position in the labour market. The common characteristic of all educational programmes financed by the government throughout the adult and vocational education field is that of a qualification as the final goal. By this is meant that educational programmes financed by the government, in addition to a certain focus on personal development, are primarily intended to result in a vocational or other qualification" (*Central Issues Memorandum for the Adult and Vocational Education Act,* Ministry of Education, Culture and Science 1993a).

The Central Issues Memorandum formed the prelude to the WEB, which came into force on 1 January 1996. An important part of the WEB is the qualification structure it incorporates, though this was not mentioned in the central issues memorandum. The WEB comprises a reorganisation of vocational education, whereby programme based organisation is abandoned in favour of content based organisation. Level 2 is regarded as the level of the minimum basic qualification. This junior worker (junior craftsman) level takes up the central position in the memorandum and the responses to it.

The memoranda gave rise to a flood of reactions following their publication. A summary of appointments frequently raised reveals the following. A good deal of criticism was expressed regarding the level at which the minimum basic qualification (elementary apprenticeship training) had been set. It was firstly pointed out that elementary apprenticeship training does not represent an unequivocal level. A number of organisations questioned whether this level could be maintained as the minimum in all industrial sectors. Doubts were expressed regarding the ability of all learners to achieve this level. The decision to restrict the right to education to an upper age limit of 27 also drew much criticism. Some organisations wished to see a link to education already completed as an alternative.

Another frequently mentioned issue was the extension of the educational levels that were to be regarded as a minimum basic qualification. In the *Keep on Learning* memorandum, alongside elementary apprenticeship training, two years of MBO and a HAVO or VWO diploma were also to be regarded as a minimum-basic qualification. Many objections were raised against this extension in particular, since there was no mention of vocational qualifications involved. A number of organisations expressed a need for a clear qualifications structure in which the minimum basic qualification would have a clear place. Some added to this the request that one or more levels below the minimum level should be taken up into the qualifications structure. At the same time a number of organisations regarded the minimum basic qualification as too narrowly defined. The qualification should not only provide preparation for the world of work, but should include other social skills. As a final common issue raised in the different responses, it is important to mention the generally felt need for the recognition of informal qualifications.

There was follow-up on a number of the responses (such as the introduction of the assistant level), though it is clear that the government failed to act on at least one of the issues raised. The basic qualification was more or less tacitly made operational in a way that certainly connects with preparatory general and vocational programmes, but in which the norm for general programmes has been drastically raised, level 2 in secondary vocational training, plus the HAVO or VWO diploma: a choice that seems to be based more on administrative convenience than on grounds of content. We shall return to this point later.

Still interesting in this context though is the recommendation requested from the Advisory Council on Government Policy (WRR) in relation to the *Keep on Learning* memorandum. The question at issue relates to the investigation of the legal and instrumental specifications of the policy and particularly the option of introducing a qualification norm. The Council arrived at the conclusion that three models could be used, each of which more or less ruled out the other two: the right to education model, the qualification obligation model and the activation model. The right to education model gave each individual the opportunity of gaining a basic qualification. Individuals were given this right to education, but were placed under no obligation to actually take up the right. A significant objection to the right to education model is that it is impossible to gauge the extent of its financial consequences. The qualification obligation is another option, under which the basic qualification adopts the role of compulsory education. All citizens would have the obligation to obtain a basic qualification. An important problem for this variation is the question of what must then be done with the so-called unwilling and unable. People cannot be schooled against their will. According to the Council, having the basic qualification as part of a pro-active labour policy is the one that offers most advantages. This model has neither an open-ended right to education

nor a learning obligation. The various parties would dedicate themselves to ensuring that as many people as possible gain a basic qualification, especially those already working, and more especially those currently unemployed. While no right to education could be claimed, a limited budget would be available for schooling up to the minimum qualification level. The model would give the government the option of determining for itself the level of resources to be made available, an option it would not have under the right to education model. There would be no question of compulsory education under the activation model, which meant that a small group of individuals who were unable to obtain the basic qualification would not be subjected to any invidious sanction. It would in any case be almost impossible to define this group. The distinction between the unable and the unwilling is sometimes extraordinarily narrow. A final plus point for the activation model is that it would entail no amendment of the Compulsory Education Act.

The ongoing debate on the basic qualification proceeded according to two major lines. The most important of these concerned tightening up the battle against premature school leaving in response to the "Well-prepared start" memorandum. The titles of subsequent policy memoranda "A basic qualification for all, Premature School-leavers Regional Registration and Coordination Centre" (Ministry of Education, Culture and Science, 2002) and the "All ways lead to a basic qualification" report in the framework of the Market Trends, Deregulation and Legislation operation (Ministry of Economic Affairs, 2000), are revealing in this context. The crucial point of policy at issue was that young people up to the age of 23 had to be brought up to a basic qualification level using some suitable approach. This level now involved the "final" operationalisation of MBO level 2 or HAVO/VWO. As well as educational institutions, social partners, benefit agencies and (where appropriate) relief agencies were also responsible for the achievement of this objective. Apart from the formal educational programme route, experiments were also permitted for study/work routes and other forms consisting not only of learning as such, but which also included work experience. For those who proceeded no further than level 1 (assistant level), the option of going on to the basic qualification level needed to remain open. This approach, which focuses on premature school-leavers, would be given a legal basis in 2001.
A second line of debate was that of lifelong learning, culminating in the *Lifelong Learning* Policy Agenda (Ministry of Education, Culture and Science, 2002). The idea was expressed in a number of memoranda that the provision of schooling for people at work and those seeking work up to the basic qualification level included a role for the government. This responsibility was one that had already been taken up where those seeking work were concerned; a schooling component was now included in most reintegration routes.
With regard to working people without a basic qualification, the issue clearly involved a shared responsibility between the government and social partners. There was some doubt as to the feasibility of a "right" to a basic qualification,

partly in view of the very large numbers of working people who fall below this level. On the one hand, many would probably be sufficiently well qualified through their work experience and schooling. The hope was expressed that the Recognition of Acquired Competencies (EVC) procedures would render this situation visible. On the other hand it would be necessary to set priorities for the large group of working people without a basic qualification in the case of employees with only a primary level education or older employees who have traditionally enjoyed less schooling.
Government support was a practical and financial necessity, though this support was necessarily subject to constraints in this time of recession. Part of the fiscal facilities specifically set aside for working people without a basic qualification had meanwhile been scaled down.

To summarise, the concept of a basic qualification was introduced during the nineteen nineties as an answer to the poor alignment that existed between education and the labour market. The basic qualification would need to serve as an adequate basis for entry into working life and for ongoing development and schooling. There was a good deal of debate with regard to the level but agreement on finally making it work (at level 2 in secondary vocational education or a HAVO/VWO programme) was more or less tacit. Discussion remained possible, particularly with regard to equating level 2 programmes in vocational education with HAVO/VWO programmes. On the one hand a HAVO/VWO programme provided no direct preparation for the labour market while those who had gained a HAVO/VWO qualification often had a higher level of basic skills. We shall return to this point later.
The aim of achieving a basic qualification for all was currently used as a point of departure in many policy memoranda, though the actual range of policy instruments concerned was rather more modest. The most far reaching of these was the decisive approach to the problem of premature school leaving. The basic assumption here was that young people up to the age of 23 needed to be brought up to the basic qualification level whatever it took. Though this did not add up to a learning obligation per se, it approached the definition of a qualification obligation within the meaning of the Advisory Council on Government Policy (WRR). We saw something similar in the case of those seeking work, where most reintegration routes included a schooling component, albeit the aim of obtaining the basic qualification was not always considered feasible. The government commitment towards working people without a basic qualification was in fact limited (and was even on the decline at this time of recession), partly due to the large numbers involved. What actually obtained was more of an activation model. The social partners regularly took over this responsibility, in the form of collective wage agreements for instance or activities financed from R&D funds.

2.3 Who are those without a basic qualification?

The major priority that has been given to gaining a basic qualification by Dutch educational policy over recent years might lead one to expect that the relevant developments have been monitored at all possible levels. This is only partly true however. Little insight for instance has been gained into the question of how many young people in particular age groups are currently working on gaining a basic qualification and how many are not. This lack is caused by the fact that while the most important sources of educational statistics, Statistics Netherlands Educational Matrices and the extrapolations based on these, such as the reference estimates, map out the transitions from time T to time T+1, no longitudinal information is available at the individual level. This entails that no answers can be given when it comes to the question of what percentage of those who drop out of school ultimately go on to gain their school diploma in a further education programme. This results in flows of premature school-leavers being systematically overestimated due to the fact that later returns to education are not properly taken into account. The introduction of the national education number aims to bring about a change in this situation and make it possible to trace the educational career of individual pupils for the first time and so establish the likelihood or otherwise of young people in particular age groups being able to gain a basic qualification.

Figures relating to the likelihood of gaining a basic qualification are therefore based on estimates and are subject to arrangements under which use is sometimes made of data sources not designed for the purpose. Figures on this are presented inter alia in the recent evaluation of the WEB as regards accessibility, internal cost-effectiveness and outflows to the labour market (Van der Velden, 2001). In the same report, De Jong and Berkebosch (2001) provide an analysis of developments among that section of young people who have not gained a basic qualification and are not currently following any educational programme. The figures are based on the National Labour Force Survey (EBB) conducted by Statistics Netherlands. It emerges from this that the percentage of young people within the 15-24-year-old group who have not gained a basic qualification and are not currently following an educational programme fell from 20% in 1995 to 17% in 1997 and 1998, only to rise again to 18% in 1999. The increase appears to be accounted for primarily by the growing share of native Dutch young people who leave school without gaining a basic qualification. Recent figures from the Ministry of OCW show this to be a random peak and that figures for 2000 and 2001 again show a slight fall (OCW, 2002). Based on the National Labour Force Survey for instance, Polder et al. (2003) find the percentage of 18-24-year-olds no longer following a programme of education and not having gained a basic qualification amounted to 15.3% in 2001. This places the Netherlands under the European average but ahead of the figures for our immediate neighbours. This percentage is planned to be cut by half under the Lisbon objectives by 2010. Polder

et al. (2003) report that the group of premature school-leavers without a basic qualification in 2000 was estimated at 47,000, the largest component coming from (I)VBO. Part of these later returned to education. The core group of premature school-leavers is therefore estimated at 32,900, half of whom are particularly vulnerable, having gained no secondary education qualification at all. Even this analysis however is incapable of providing a definite answer to the question of what percentage of a particular age group manages to gain a basic qualification. Formulated from a different perspective, while it is possible to compare relative changes over the years, no special significance can be accorded to absolute percentages.

Similarly, little information is directly available or accessible regarding the effects of having or not having a basic qualification. One of the most important sources of information on the transition from school to work, the annual ROA *Schoolverlaters tussen onderwijs en arbeidsmarkt* report *(School-leavers between education and the labour market)*, while it publishes very detailed information on all educational programmes, fails to give direct insight into the question of whether the basic qualification differentiates itself as such from the other levels. This is due to the fact that in their presentation, the aggregated figures for educational programmes at levels 1 and 2 are combined, as are the figures for levels 3 and 4. The same applies to the analysis work carried out by Wolbers (2001) for the earlier mentioned evaluation of the WEB. Wolber's analysis work related to the cohorts leaving BOL from 1990-1991 to 1997-1998 inclusive. He concludes that in general the transition from adult and vocational education to the labour market takes place successfully but at the same time indicates that the position of MBO leavers is clearly better than that of KMBO leavers. This conclusion is more or less confirmed in the most recent ROA analysis (ROA, 2002), from which it emerges that the position of BOL 1/2 school-leavers in final school age groups 1990-1991 to 1999-2000 inclusive is relatively weak and more comparable to VBO than to BOL 3/4 (ROA, 2002). To some extent however the relatively weak position of KMBO programmes is caused by the availability of a number of sizeable one-year programmes like the "orientation and link up" programme. The analyses concerned therefore say nothing about a possible distinction between level 1 and level 2. The analyses in this report are intended to fill this gap.

According to earlier CBS estimates, there are something like 1.9 million working people in the Netherlands without a basic qualification, amounting to almost a quarter of the labour force. This figure needs to be put into perspective however. While these adults may not have completed a basic qualification level programme, they may well be capable of functioning at a higher level in the labour market because of their work experience or because they have followed training courses. The ROA recently analysed the labour market position of working people with and without a basic qualification (De Vries et al., 2003). The boundary line for the basic qualification is drawn rather more

roughly here, with LBO, VBO or MAVO on the one side and MBO, HAVO or VWO on the other. Taking the labour force as a whole, 28% -according to this definition- have no basic qualification. Occupational groups with large numbers of working people without a basic qualification (more than two thirds) include office assistants, metal workers, building trade workers, ancillary staff in the hotel/catering and healthcare sectors, drivers and shelf-fillers. The number of workers with a permanent job in these occupational groups is low and sensitivity to economic fluctuations is often high. These are also occupations for which few job openings are expected in the future.
People in possession of a basic qualification are more often in work than people without a basic qualification and their future work perspectives are better. An MBO qualification in particular offers good prospects in the labour market as compared to a MAVO or VBO qualification. It is certainly to be recommended therefore that students should follow an MBO programme after completing their MAVO or VBO programmes. A striking fact is that labour market opportunities for those who have completed an MBO programme are even better than for those who have completed a HAVO/VWO programme.

When it comes to the numbers of those seeking work while not in possession of a basic qualification, the data is somewhat obscured by questions of definition. In 2001, according to Statistics Netherlands, there were 248,000 people in search of work, of approximately 45% of whom were without a basic qualification. This group can be defined a bit more closely using the database maintained by the Centre for Work and Income (CWI) This group of work seekers often finds itself categorised as consisting of individuals who are difficult to employ (phase 3 or 4 in terms of the CWI). Two thirds of young people (aged 15-19) seeking work do not have a basic qualification: these are school-leavers without an employment history. A relatively large proportion of older people in search of work are without a basic qualification.

2.4 The international discussion

The *Thematic Review: Transition from school to work* publication issued by the OECD provides a good account of the insights and policy intentions that have been formulated internationally in order to serve as the basis for successful policy on the transition from school to work (OECD, 2000). The first objective of this policy is to ensure that "A high proportion of young people complete full upper secondary education with a recognised qualification for either work, tertiary study or both" (OECD, 2000, p. 31). The OECD thereby underscores the idea that a successful transition policy needs to be aimed towards the goal of everyone gaining a minimum level of educational attainment (upper secondary education).

The document goes on to spell out the preconditions for a successful transition policy. Central here is the notion that "education, employment and social policies can make a significant difference in laying effective foundations for lifelong learning, in dealing with the transition problems of those most at risk of being excluded, and in enhancing both economic effectiveness and social equity" (op. cit., p. 14). Looking purely at the educational system itself, it appears that the educational route represented by upper secondary education (apprenticeship training, vocational education or general education) does not in itself constitute the key to successful transition. The crucial requirement is that "young people have available to them learning pathways and qualification frameworks that are clearly defined, well organised and open, designed and developed in a lifelong learning perspective, with effective connections to post school destinations, either work or further study" (op. cit., p. 15). Though the learning route followed is somewhat less important, what is crucially important is to offer a range of different educational routes. Also desirable is that it should be easy to switch between different educational routes.

A "flexible" upper secondary education system such as this increases in a number of different ways the likelihood that young people will leave education with a qualification at a particular level. Or as the OECD puts it: "Young people will have available to them a wide variety of general, technical and vocational education options, developing both work-related competencies and personal and social skills" (op. cit., p. 15). In the first place, a system such as this offers young people a wide range of choices. As a result, each individual will be able to select the learning route most appropriate to him or her, so reducing the likelihood of dropout. Secondly, the system will increase the likelihood that those who fall out will be able to pick up the threads again easily. The system itself will function as a safety net in these cases.

The completion of a programme at the upper secondary education level is not only important for a successful transition from school to work or for easing the transfer from secondary education to tertiary education. It also plays an important role in lifelong learning according to the OECD. "Providing all young people with a high quality upper secondary education that develops general, personal and work-related knowledge and skills, and providing all with opportunities for learning outside of the classroom is a key challenge to the ability of upper secondary education to lay a better foundation for lifelong learning" (OECD, 2000, p. 22).

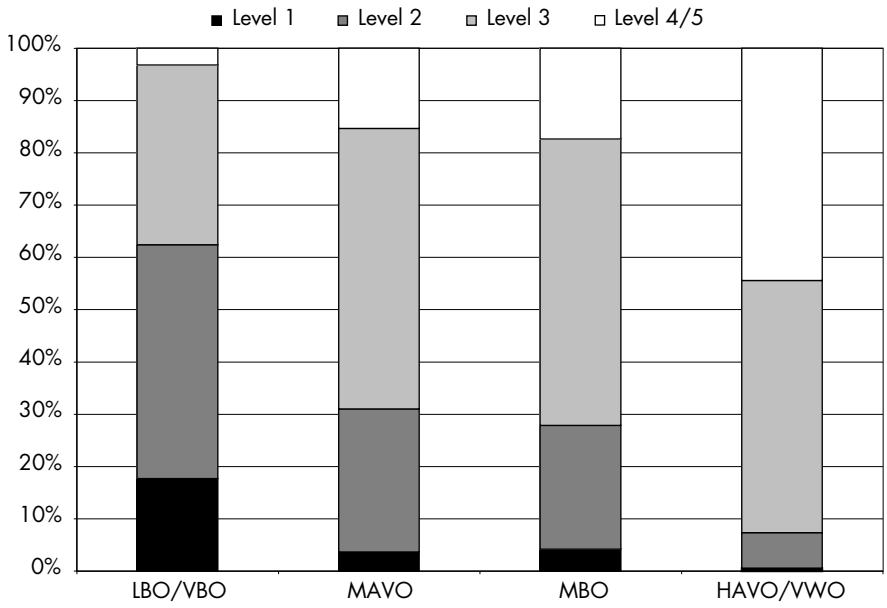
In authoritative OECD publications such as *Education at a Glance*, not all qualifications gained from programmes that formerly constitute part of "upper secondary education" are regarded as amounting to successful completion of upper secondary education. Actual "level completion" takes place when, seen from the perspective of national standards, secondary education has been completed in such a way that the student thereby gains access to tertiary edu-

cation or has become well-qualified to enter the labour market. In the case of the Netherlands, the boundary line for "level completion" lies with programmes at a minimum of level 3 of the qualification structure (so-called vocational training). An exception is made to this OECD connection where England and France are concerned however. Programmes at the 3C short level are also regarded as constituting "level completion" for these two countries. The reasoning behind the exceptional position given to the two countries is explained as follows: "There is a clear distinction in France between the ISCED 3C short level (…) and the higher levels which group together 3C long, 3B and 3A programmes (…). For France therefore, students who have successfully completed secondary education and those who have a level of qualification corresponding to a short ISCED 3C programme are considered to have completed the ISCED 3 level" (OECD, 2001a, p. 343). For the United Kingdom the reasoning is as follows: "The United Kingdom's attainment data at upper secondary level (ISCED 3) includes a sizeable proportion of persons (about 7 per cent of the population) whose highest level of attainment will in general have been reached at age 16. Although the programmes they have completed do not formally satisfy the duration criterion for the completion of ISCED level 3, they can lead to a qualification (5 A-C grades in GCSEs) that the United Kingdom considers to be at the same attainment level as that conferred by completion of a number of programmes which do satisfy the ISCED criterion. In other words, the usual ISCED classification criteria have been relaxed for this group, for reasons of consistency with the national structure." (OECD, 2001a, p. 343).
The discussion cited above formed the occasion for this report.

2.5 The incommensurability of the basic qualification

The basic qualification has been placed on a par with vocational education level 2 and HAVO/VWO. The question must be whether we are not dealing with two educational programmes that lend themselves only poorly to being compared. The following information is based on the IALS study described more extensively in chapter 4.
The table below shows literacy scores for Dutch young people (aged 16 to 24) in four types of educational programme: LBO/VBO, MAVO, MBO and HAVO/VWO. Five levels of literacy are distinguished by the test, but levels 4 and 5 have been combined on account of the low numbers involved. People with a score at level 1 (black on the graph) have difficulty with understanding and applying very simple instructions. Even at level 2, however, the task of filling in an order form for the copy shop proved to be present problems.
It is clear from figure 2.1 that young people in general secondary education normally have a higher literacy score than those in vocational education. We also see this in the TIMSS results (see chapter 4).

Figure 2.1 **Documentary literacy in four educational programmes, ages 16-64, weighted**



The leap from LBO/VBO to MAVO is particularly significant; 50% of young people with an LBO/VBO background scored at levels 1 and 2, while for those with a MAVO background the figure is only 20%. Young people with a MAVO background differ hardly at all from those with an MBO background as regards functional literacy. The leap from MBO to HAVO/VWO is again significant. Young people with a HAVO/VWO background scored 40% at levels 4/5, the comparable figure for young people with an MBO back ground being 20%. It was impossible to distinguish the basic qualification level in this study. Given the year it was taken, these were MBO programmes prior to the introduction of the WEB. We can assume that MBO students at level 2 will score no higher on literacy than those with an MBO background tested here. It is clear that if level 2 is to be regarded as the basic qualification level, it will be better to take MAVO rather than HAVO/VWO as the general education comparison. This is subject to the comment of course that what we have here is a particular kind of skill; the ability to understand and use information that people ordinarily encounter from day to day. The basis for the discussion changes if the basic qualification is primarily regarded as a preparation for the labour market.

Here again though, it would be difficult to imagine that labour market opportunities (particularly over the slightly longer term) could be regarded as existing in isolation from the need to master basic skills.

3 The basic qualification and international programme comparisons

3.1 Introduction

As already indicated, the main research question for the study into the Dutch basic qualification is: 'What is the "value" of the Dutch level 2 programme, or in other words what is the "value" of the Dutch basic qualification in both the national and international context?'
The section of the "Value of the basic qualification" project undertaken by Jittie Brandsma of the University of Twente comprised an international comparison of programmes that were partly more general in character and that concentrated partly on the ISCED 3C short programmes. It was also attempted to make more intrinsic comparisons of a smaller set of programmes. The method used for this work was as follows. First of all, based on the materials available (particularly system descriptions drawn up as part of a classification study carried out for the OECD between July 1999 and March 2000) and the supplementary reports, a description was made up of the "upper secondary education" systems in the countries concerned, i.e. Germany, France, the Netherlands, the Czech Republic and the United Kingdom, England in particular (see section 3.2.5). These (English language) descriptions were then submitted to the experts in the countries concerned, accompanied by a memorandum on the objectives and structure of the study and indicating the types of information we wished to collect and details of the programmes (see Appendix I). The memorandum also included a list of ISCED 3C short programmes we wished to study further so that we could make more content based comparisons. Programmes were selected so as to include the technology, economy and administration and care/welfare sectors. In the selection of programmes, the starting point for which was the Dutch level 2 qualification, we took into account on the one hand the fact that the types of qualification we needed would have to be those that could reasonably expected to crop up in other countries. These would be qualifications such as those for cooks, hairdressers, bakers, bricklayers and plasterers. On the other hand it was also important to bear in mind developments in the world of work, so that the "ICT services assistant" qualification was also included for instance. It can be concluded generally that at level 2 of the qualification structure, particularly in the technical sectors (electrical engineering, installation technology, metal trades) in the Netherlands, differentiation occurs due to the existence of an entirely independent qualification nomenclature, creating a situation that cannot be equated easily with those that occur in other countries.
Based on the memorandum and system descriptions for the countries concerned, interviews were then conducted with experts in Germany, France, the Czech Republic and England that had the double function of testing the accu-

racy of the system descriptions and collecting further information on ISCED 3 programmes (with a particular emphasis on ISCED 3C short programmes). Supplementary documentation was collected wherever possible for the benefit of more content based programme comparisons. A slightly different procedure was needed for the Czech Republic. A questionnaire was drawn up once the expert interviews had been concluded and this served as a basis for collecting the data for each of the programmes.
The structure of this section of the report is as follows. Firstly, a sketch of the ISCED 3 programme structure in each of the countries is given in section 3.2. In section 3.3 the attempt is made to compare the systems based on a number of indicators, the focus being on ISCED 3C (short) programmes. This section of the report ends with a number of conclusions (section 3.4).

3.2 Upper secondary education (ISCED 3) in five countries

3.2.1 Germany

Compulsory education in Germany begins at the age of six. Depending on the federal state concerned, primary school (Grundschule) takes up five or six years (the latter is the case in Berlin and Brandenburg). When defining the meaning of compulsory education, a distinction is made between full-time compulsory education (nine years) and part time compulsory education (three years, being equivalent more or less to the duration of the dual programmes). Pupils go on to the first stage of secondary education (Sekundarbereich I) where the choice is made between the Hauptschule, the Realschule, the Gesamtschule (not available in all states) and the Gymnasium at the age of 10 (or 11). The Hauptschule phase comes to an end in principle at the end of the ninth year with the so called Hauptschulabschluss (in federal states where the period of compulsory education is 10 years, pupils can voluntarily opt for a further year in school). Pupils in other types of schools can normally obtain a corresponding qualification at the end of the ninth year. The Hauptschulabschluss gives access to the dual vocational programmes and partly also to the Berufsfachschulen and the Berufsgrundbildungsjahr. The subjects in the Hauptschule curriculum are German, a modern language, mathematics, physics, chemistry, biology, geography, history, vocational orientation and sociology, music, drawing, sport and religious education (some of the federal states also include domestic science).
The Realschule examinations take place at the end of the 10 years and are designated “mittlerer Schulabschluss”. The curriculum coincides with that of the Hauptschule, but with the difference that the sociology subject contains no vocational orientation and includes more constitutional law elements.
Realschule pupils must also spend six hours a week on elective subjects supernumerary to the compulsory subjects commencing from the second year. The

following subjects are compulsory in the lower years of the gymnasium: German and two modern languages, mathematics, physics, chemistry and biology, geography, history, social studies, music, drawing, sport and religious education. In the final lower year there is the addition of a further two to five hours per week for compulsory elective subjects (a third language for instance). Depending on the type of school, pupils have 28 lesson hours per week for the first two years and 30 hours a week after that. On transferring from lower to upper secondary education, pupils enter Sekundarbereich II. The options open to pupils in this phase are strongly determined by the type of programme followed in lower secondary education. Strikingly enough, according to the ISCED mappings, Germany has no ISCED 3C programmes and only has ISCED 3A in general education and ISCED 3B in vocationally linked programmes. Under these mappings, the dual system only makes a return via the Berufsschulen, which are responsible for the theoretical section of the dual programme and are classified as ISCED 3B (vocationally linked).

ISCED 3A programmes

The most important programme in this category is the gymnasium Oberstufe, which normally includes years 11 to 13 (with one or two exceptions). Pupils with the transfer certificate from year 10 or 11 or with equivalent qualifications covering lower secondary education gained in other types of schools have access to this programme. The Oberstufe comprises a one-year introductory course and a two year qualification phase. Following the introductory course the annual class system is replaced by a course system under which a distinction is made between basic courses and advanced courses. Two thirds of the curriculum in the qualifications phase is taken up by basic courses. Pupils are obliged to follow at least two advanced courses, one of which must relate to the German language, a second modern language, mathematics or one of the sciences. The gymnasium Oberstufe concludes with the Abitur, the final exam with papers in four subjects, including the two advanced subjects. A pass in the Abitur results in the award of the "algemeine Hochschulreife", which confers access to the full range of tertiary education programmes.

In addition to the gymnasium, there are various types of schools/programmes classified as ISCED 3A general. These are schools/programmes that are often more "state-specific" in the sense that they are not common to all of the German federal states. The first of these are the Fachgymnasia, which also have three-year programmes culminating in the "algemeine Hochschulreife". The Fachgymnasia are slightly more vocationally linked and usually accommodate only upper secondary education (this is in contrast to the general gymnasia, though Fachgymnasia as such may in turn be part of the Oberstufe of the gymnasium).

In addition there are various types of schools/programmes that provide two to three year courses leading to either the "algemeine Hochschulreife" or to the more limited "Fachhochschulreife". The school types concerned here include the Kollegschulen and the Berufsfachschulen, both of which offer two to

three-year programmes that lead to a Fachhochschulreife or a general Hochschulreife, depending on length. The requirement for entry to three-year courses leading to an "algemeine Hochschulreife" is generally at least a "mittlerer Schulabschluss" (the level attained on leaving the Realschule). Finally there are the Fachoberschulen, which offer two-year programmes leading to a "Fachhochschulreife". The entry requirement here is also a certificate at at least the Realschule level.
These educational provisions all come under the responsibility of the Ministries of Education in the federal states and may differ from one another as regards regulation and structure. It can be expected however that the essential coordination needed takes place via the Standing Conference of the Ministries of Education in the federal states.

ISCED 3B programmes

Where the ISCED 3B programmes are concerned, the most important distinction to be borne in mind is that between full-time vocational education, which is regulated by the federal states, and the dual educational programmes. Where these latter are concerned, the rule is that educational programmes run within companies and organisations providing workplace training come under the responsibility of the federal government. The federal states however have responsibility for the theoretical part of the dual programmes, which is taught in schools (the Berufsschulen in this instance). Where these dual programmes are concerned, ISCED statistics only provide information on the schools component. The Berufsschulen are classified as ISCED 3B "vocational". Policy coordination for the schools component of the dual programmes takes place via the Standing Conference of the Ministries of Education in the federal states and is linked to procedures for the renewal of the Ausbildungsberufe at the federal level (see below under Berufsschulen).
Scores of variations are again encountered when we come to the full-time programmes, all of which are nevertheless classified as ISCED 3B "vocational". Involved here are the Berufsfachschulen, Kollegschulen, Schulen des Gesundheitswesens, the Berufsgrundbildungsjahr and the Berufsschulen.
In addition to three-year programmes that provide access to university education, the Berufsfachschulen also offer one to three-year (or more) vocationally linked programmes. The one-year programmes are mainly meant to give students who still need it the opportunity of reaching the Realschulabschluss level. Despite this, they are classified as 3B vocationally linked and successful completion can lead to a programme length reduction under the dual system. The two and three-year vocationally linked programmes, for which at least the Realschule level is the entry requirement, lead to a so-called Berufliche Abschluss or certificate that confers the status of state recognised "assistant" in a particular discipline (not to be confused with the Dutch assistant programmes). This certificate is regarded as equivalent to the one awarded under the dual system. The same applies with regard to the Kollegschulen. Institutes that offer healthcare training may also have a range of one to three-year pro-

grammes. These for instance include one-year nursing assistant courses taught to situations that offer in service training and two to three-year programmes that qualify students for the nationally recognised "assistant qualification" in paramedical or other professions allied to the medical sector (e.g. occupational therapist, speech therapist, assistant dietician).
The Berufsgrundbildungsjahr is a one-year programme primarily intended for those who wish to gain entry to the dual system but have not yet been offered a work-study place. In this respect it replaces the first year of the dual vocational programmes and offers both general and vocational orientated subjects in the same way as the dual programmes, but in only in the schools setting in this case.
The Berufsschulen provide the theoretical section of the dual programmes. As already stated, the Berufsschulen come under the responsibility of the federal states, though the practical section of the dual programmes comes under the direction of the federal government. There are currently 348 Ausbildungsberufe, approximately 100 of which no longer operate; there is no longer any demand for them and the flow of students into these programmes has come to an end. The majority of the dual programmes have a duration of three years (36 months). There are some exceptions however. Approximately 65 of the programmes have a duration of four years while a further 25 programmes run for only two years. Examples of the four-year courses include programmes that provide professional qualifications for goldsmiths, pharmacists, instrument makers, recognised gas and water fitters, heating and air conditioning installers and mechanical engineers. Examples of two-year courses include programmes for sales assistants, photo laboratory assistants and milling machine operators. Finally there are two eighteen month programmes mainly focusing on (simple) assembly work.
Table 3.1 gives a survey of pupil numbers broken down over the different programme sectors (1999 vs. 1992). It is clear that participation is concentrated in three sectors: trade and industry, crafts and the professions.

Table 3.1 **Pupil numbers in the dual system according to programme sector (1992 and 1999)**

Sector	1992	1999
Trade and industry	841,600	833,000
Crafts	553,400	616,900
Agriculture	33,000	40,400
Public services	71,400	47,500
Professions	154,600	146,600
Domestic science	12,100	13,600
Seamanship	600	400

Participation in the dual programmes is strongly concentrated in a limited number of Ausbildungsberufe. Of the male students for instance 48.5% train for the following five occupations (based on 1999 data): motor mechanic, electrician, painter, cabinetmaker and plumber/installer. Of the female students no less than 66.3% are trained for the following five occupations: secretarial assistant (industrial secretary), retail sales assistant, medical receptionist, hairdresser and dental surgery assistant.
Although the majority of the dual programmes have a three-year duration (apart from the exceptions above) they still reflect an informal hierarchy. The training for qualification as a cook is regarded as relatively easier, while more prestige attaches to the "Bankkaufmann/frau" (Bank clerk - male or female) course, attracting relatively large numbers of students who despite having gained the Abitur and access to higher education, still opt for a dual programme. About 7% of this group annually decide to continue their studies in the higher education sector after completion of the dual programme.
In addition to the 348 recognised Ausbildungsberufe, there is another group of specific programmes/learning routes for "disabled people" (Behinderten). Under the terms of the Vocational Education Act it is possible to provide dual programmes for this group that deviate from the stipulations of the Ausbildungsordnungen or train these groups for non-recognised Ausbildungsberufe. Where these options are taken up, the courses to be provided must be based on regulations drawn up by the chambers, (particularly the Industrie und Handelskammern and the Handwerkskammern). Though certain qualifications apply across a wide number of regions (both within and between the federal states), there can be variations in the duration of the programme from region to region.

In contrast to the Netherlands and England, the dual programme has no system of partial qualifications. It is mainly the employee representative organisations who oppose this, prompted by the fear that employers might be unwilling to allow students to continue their studies once they had completed one or two partial qualifications or the first phase of the programme. Even here though there are exceptions. In the building industry in particular (and in a number of occupations in the textile sector) a phased programme is now being used under which, on completion of a first year of study common to all programmes (berufliche Grundbildung), students choose a specialist domain in the second year and then go on to definitive specialisation in the third year. The first and second years make up phase 1 and take a total of 104 weeks, the third year is designated as phase 2 and takes 52 weeks. From interviews with specialists in the field it emerged that the expectations are that a structure similar to this, involving Grundbildung, Fachbildung and specialisation, will become more common for newly emerging occupations.
Where the schools section of the dual programmes is concerned, the rule is that the "Rahmenlehrplane" developed to run parallel to the training regulations (Ausbildungsordnung) give a certain direction to the design of the

schools section of the programme. These are only minimum preconditions however and further interpretation is left to the federal states. In general, the schools section of the programme takes up two to three days a week, approximately one third of which is spent in general education subjects (e.g. German language, social and communication skills), with two thirds of the time being spent on vocationally linked theory. In point of fact the framework learning schedules contain guidelines only for the vocationally linked part of the curriculum supplied by the Berufsschulen. These framework schedules make no contribution to the general part of the programme.

Broadly speaking, a total of 880 hours are devoted to occupational theory over a three-year programme. In the case of older programmes (for which the Ausbildungsordnung was introduced during the nineteen seventies or nineteen eighties) the number of hours may be less. Guidance is also given in the form of exam regulations, which cover both parts of the programme, schools and practical. The different "chambers" (the Industrie und Handelskammern for example) play an important role in devising the exam regulations. One consequence of this is that the shape assumed by the schools section of the programme can differ slightly between the federal states. Although classification of the dual programme as ISCED 3B might suggest otherwise, gaining a qualification in the dual system does not provide access to higher education (unless participants are in possession of a (Fach)Hochschulereife). While there are certainly further study programmes available to dual system graduates, these programmes are not regarded as part of the higher education system (and instead are classified as ISCED 4). Mainly concerned here are programmes that prepare students for the "Meister" qualification (or similar), allowing students to qualify as practical instructors in the dual system. The condition for admission to the exam for these qualifications (which can be gained without further training strictly speaking) is a number of years of work experience in the relevant occupational group. In point of fact work is now afoot with the intention of creating possibilities for gaining further qualifications, and placing these where possible on a par with qualifications gained in the higher education sector.

3.2.2 France

The French education system has three stages: the first stage comprises preschool and primary education, the second stage comprises lower secondary education (designated as the first cycle) and upper secondary education (designated as the second cycle), and the third stage relates to higher education (enseignement supérieur). Compulsory education begins at the age of six and ends when pupils turn 16, thereby including primary education (five years), lower secondary education and the first year of upper secondary education (though the whole of the second cycle is classified as an ISCED 3A

programme). Further distinctions are drawn within lower secondary education (lasting four years), creating three cycles, under which halfway through the second cycle pupils can elect for either a general or technical direction for their studies. The curriculum for lower secondary education has the following compulsory subjects: French, mathematics, a modern language, history/geography/social studies (as a single subject), life and earth sciences, art appreciation and sport. Physics and chemistry are added in the second year and a second language or technology in the third (depending on the direction chosen). Starting from the second year it is also possible for pupils to take additional elective subjects such as Latin and Greek, a regional language (or a second foreign language) or technology. The compulsory curriculum accounts for 26 hours a week in the first three years, rising to 28.5 hours and 27.5 hours for the generally orientated and technologically orientated programmes respectively in the fourth year. For those who do less well there is the option of following a work preparatory (alternate) direction which can then be continued under the apprenticeship system. When it comes to upper secondary education, France has 3A, 3B and 3C programmes.

ISCED 3A programmes

The 3A programmes are the Baccalauréat Général (referred to below as BacGen) and the Baccalauréat Technologique (referred to below as BacTechno). The BacGen and BacTechno have a joint first year with a shared programme. Admission to the first year depends on receiving approval from the "conseil de classe", consisting of all the teachers the pupil has encountered in the first phase, the rector, two parents and two fellow pupils. Pupils make their choices at the end of the first year. Pupils who opt for the BacGen then choose from the following three directions:

- literature;
- economics and social sciences;
- science.

The nominal duration of the BacGen programme is three years, but the average duration is somewhere between three and four years. Pupils who gain their BacGen have access to higher education.

Pupils who opt for the BacTechno must make a choice from the following five directions:

- science and tertiary technology;
- science and industrial technology;
- science and laboratory technology;
- medical-social science;
- other specialisms (particularly at the level of hotel/catering and performing arts).

Similarly for the BacTechno programme, the nominal duration is three years, though the average duration varies between three and four years. Pupils who gain their BacTechno can choose between entering the labour market or continuing their studies to qualify for the Brevet de Techniciens Supérieur (BTS) or the Diplôme Universitaires de Technologie (DUT) (both ISCED 5B short programmes). The further study options are in this respect more limited than the options offered to students who gain a BacGen.
For both the BacGen programme and the BacTechno programme, class schedules vary between 27 and 31.5 hours a week (depending on the direction chosen and the options taken within the specialism). The BacGen and BacTechno curricula have been under renewal on a stage by stage basis since 1999. Pupils follow a common curriculum in the first year (French, mathematics, physics and chemistry, life and earth sciences, a modern language, history, geography, physical education and social studies), supplemented by two compulsory elective subjects and the option of a third elective. In the second and third year, the content of the curriculum depends even more on the selected direction chosen and the options taken within the specialism. The curriculum in the second year consists in all cases of a compulsory core curriculum, the two elective subjects from the first year, a supplementary specialist subject plus an optional supplementary elective subject and individual project work on the compulsory subjects. In the final examination year the schedule consists of the compulsory core curriculum, the specialised subjects and any additional elective subjects, plus the individual project work.

ISCED 3B programmes

Three types of programmes are classified as ISCED 3B programmes in France: the "Baccalauréat Professionnel" (BacPro), the "Brevet de Technicien" (BT) and the "Brevet des métiers d'art" (BMA).
The BacPro was introduced in 1985 in order to provide further study options for vocational education pupils and thereby improve the transition phase between school and the labour market. In order to start a BacPro, students need either a "Brevet d'études professionnelles" (BEP) diploma or a "Certificat d'aptitude professionnelle" (CAP) diploma. A BacPro programme qualifies graduates to undertake 73 different specialisms, 11 of which are in the agricultural sector. Three different types of educational route can lead to a BacPro. The first of these is the schools learning route (sous statut scolaire) which has a duration of two years. Pupils who opt for this route are given 30 hours of lessons per week, 16 to 18 hours of which are devoted to vocationally linked subjects and 12 to 14 to general subjects (French, a foreign language, general knowledge, sport and art). On top of this, three to six hours a week are spent on individual projects. The schools learning route also includes a practical vocational training element which takes up 12 to 24 weeks over a period of two years.

The second option for gaining a BacPro is the apprenticeship system. Pupils who opt for this route are given a contract of employment with the company in which they will be trained and fall under the labour law provisions. The programme is based on the dual model, under which schooling in the company and schooling in the Centre de Formation d'Apprentis (CFA), which is responsible for providing the theoretical component, takes place on a parallel basis. The part of the programme provided by the CFA takes up approximately 1500 hours per year. The third option for gaining a BacPro is part of a special measure, the so-called "qualifying contract". These contracts were introduced on the initiative of the Ministry of Employment with the aim of combating the high level of youth unemployment. These qualifying contracts are temporary contracts of employment with a minimum duration of six months and a maximum of 24 months, intended for young people aged 16 to 25 who have not yet obtained a vocational qualification. During the temporary contracts, at least 25% of the time must be spent on general and/or occupationally orientated courses taught outside of the (training) company. The company is then responsible for providing practical schooling during the rest of the (working) time. Pupils who obtain a BacPro can in principle go on to higher education, particularly if they wish to study for the BTS or the DUT. The available statistical information indeed shows that something like 70% of those who obtain the diploma take this route. In this respect there is not much difference between the BacPro and the BacTechno. One important difference however concerns the scope of the two programmes. Where the BacPro has a relatively strong vocational focus, the BacTechno has a wider orientation. In principle, both of these programmes can be regarded as so-called "bridge programmes" where classification is concerned. The BacTechno can be regarded as both 3A and 3B (given that both of these seem to prepare pupils primarily for 5B programmes). The same applies in principle to the BacPro: it prepares pupils for the ISCED 5B programmes, though equally well for the labour market. For that matter, students in a BacPro programme in the qualification contract context are classified as participants in an ISCED 3C programme.

The "Brevet de Technicien" prepares candidates for 54 different specialisms, 16 of which are in the agricultural sector. There are two options for participation in the programme. Students can opt for a BT programme after completing lower secondary education (starting age is usually 15 or 16), or they can select this option after gaining a BEP in two years (starting age is then usually between 17 and 19). The BT programme has a duration of three years. The rule however is that students who have already gained a BEP can enter the programme in the second year, which means that in their case the programme has a duration of only two years.
The third ISCED 3B programme is the so-called "Brevet de métiers d'art". This is a programme strongly focusing on artisan occupations. The programme embraces 14 different specialisms. For statistical purposes the BMA is treated as a BacPro (statisticians make no distinction between participants

in a BacPro and participants in a BMA). In point of fact neither the BT nor the BMA are included in the ISCED mappings.

ISCED 3C programmes

France has four ISCED 3C programmes. These are the programmes that lead to the BEP and CAP mentioned above, programmes that lead to a "Mention Complémentaire" (MC) and programmes that lead to a "Brevet professionnelle" (BP).
In order to enter a BEP programme, pupils need approval from the "conseil de classe" as mentioned earlier. A total of 69 specialisms are distinguished within the BEP, 27 of which are in the agricultural sector. A BEP programme has a double function. On the one hand the programmes are designed to provide preparation for the labour market, i.e. for immediate work in a chosen occupation. On the other hand however the option of further study is not ruled out (albeit the labour market function is dominant). Students who have gained their BEP have two options open to them for following the programme:

- joining a BacTechno programme (either directly or by means of an "adaptation year" in which they can catch up on any lost ground);
- joining a BacPro programme.

The first option is regarded as the most regal of the two ways, though both routes ultimately permit participants to go on to higher education (in particular to the BTS and/or DUT).
For the BP similarly, there are three possible routes for gaining this diploma (the same as for the BacPro):

- the schools learning route (starting age 15 to 17);
- the apprenticeship system (starting age 16 to 18);
- the qualification contract (starting age 16 to 25).

The schools learning route comprises 16 to 20 hours a week in vocationally linked subjects (depending on the specialism) and 14 to 22 hours of general subjects (French, mathematics, a modern language, social studies, sport). The programme additionally has in-company practical vocational training. This element was introduced for the first time in the 1992/1993 academic year. As in the case of the BacPro, the apprenticeship system route features a module of parallel schooling within a company or a CFA. Theoretical schooling in a CFA takes up approximately 400 hours per year. The duration of a BP programme is usually two years. The lesson schedule involved in gaining a BEP seems proportionately heavier than its equivalent in lower secondary education (namely between 33 and 36 lessons a week), but this is compensated for by the fact that pupils need to do little if any homework. When it comes to the learning route under a qualification contract, programme duration is usually one year. In the case of pupils who leave lower secondary education after two years, there is the possibility of gaining a BEP within three years, but this option is set to disappear before very long.

The programmes leading to the CAP are primarily designed as preparation for the labour market. A CAP can be gained in a total of 244 specialisms (25 of which are in the agricultural sector). The learning routes mentioned earlier also apply to gaining a CAP. In the schools version (with a starting age of 15 or 16), between 12 and 17 hours a week are spent on vocation-only orientated subjects and 14.5 to 16 hours on general subjects (French, a foreign language, mathematics, social studies, domestic science and sport). There is some practical occupational training but the duration of this differs markedly from specialism to specialism. On average, pupils following a CAP programme ("sous statut scolaire") have 33 hours of lessons a week. The number of weeks in the academic year varies however, depending on the length of the in-company work experience placement. If this is six weeks on an annual basis, 30 weeks are spent on lessons in school in the first year and 27 weeks in the second year. If the work experience placement is seven weeks on an annual basis, 29 weeks are spent on lessons in school during the first year and 26 in the second year. In the case of the apprenticeship system route, the same applies as for the BEP, 400 hours per year are spent on theoretical schooling within a CFA. A differential duration also applies to the CAP. There is a one-year programme, mainly meant for participants working on achieving their CAP by means of a qualification contract or for participants who elected for the work preparation route during lower secondary education. The two-year programme is the standard one. The three-year programme is for pupils with learning difficulties and for pupils who left lower secondary education prematurely. Here also however this option is set to disappear before long. A survey of all specialisms within the vocationally linked programmes in the French system is given in table 3.2.

The MC and BP are in point of fact "advanced programmes", even though they are classified as ISCED 3C. The programmes leading to an MC entail a further specialisation that can be gained by following an additional one-year course after obtaining a BEP or a CAP. Students starting an MC programme are usually 18 or 19. There are 67 specialisms within the MC programmes and the diploma can be gained either by the schools learning route or via the apprenticeship system. For some occupations, obtaining the BP diploma is a requirement in order to be recognised as a fully fledged tradesman. A BP can be gained by means of a further two-year course after having completed a CAP. Training is provided for 72 specialisms (seven of which are in the agricultural sector). This programme is strictly speaking regarded as "ongoing training" and is therefore not included in the Ministry of Education statistics. Striking is the fact that in the ISCED mappings both these types of courses (MC and BP) are described as a follow-on programmes for either the BEP and CAP or the CAP, while the admission requirement is that candidates must be in possession of an ISCED 3B qualification.

Table 3.2 Numbers of specialisms in upper secondary education in France

Programme	Current specialisms	Discontinued specialisms	Total
ISCED 3A			
- BacTechno	25	18	43
- BacTechno-A	6	-	6
ISCED 3B			
- BacPro	62	24	86
- Bacpro-A	11	-	11
- BT	38	105	143
- BT-A	16	26	42
- BMA	14	1	15
ISCED 3C			
- CAP	219	582	801
- CAP-A	25	27	52
- BEP	42	102	144
- BEP-A	27	18	45
- MC	67	45	112
- BP	65	196	261
- BP-A	7	1	8
Total	624	1145	1769

Note: the suffix -A indicates qualifications in the agricultural sector.

3.2.3 The Netherlands

Compulsory education for children in the Netherlands starts from the moment they reach the age of five (and continues up to the end of the academic year in which pupils reach the age of 16). The compulsory education requirements cover 12 years of full-time education plus one year of compulsory part-time education (up to the end of the academic year in which pupils reach the age of 17). Primary education covers eight years of learning (from the age of four). On completion of primary school, pupils follow two years of basic secondary education. Grouping based on the individual capacities of pupils generally takes place during this first two years of basic secondary education. Basic secondary education currently has 15 compulsory subjects, i.e. Dutch, English, French or German, mathematics, physics and chemistry (combined), biology, economics, history/politics, geography, two arts subjects, physical education, technology, life skills and information science. In principle, basic secondary education comprises 32 50-minute lessons a week. In 2004

this will change; basic secondary education will then consist of a compulsory core curriculum (two-thirds) and a differential component (one-third), which can be completed within the first two school years. The core curriculum then comprises: Dutch, English, mathematics, history/politics, geography, physical education, arts subjects and at least two subjects to be selected from: technology, physics/chemistry, life skills and biology. Pupils have the following three choice options on completion of basic secondary education:

- VMBO;
- HAVO;
- VWO.

Since the introduction of VMBO (1999), pupils have to choose a particular programme within one of the four outlined sectors at the end of the second year. The compulsory common section of the programme followed by all pupils from the commencement of the third year is more limited in scope than the full range of subjects offered in basic secondary education. In the same way as for the first three years of the HAVO and VWO, VMBO (four years) is regarded as being part of lower secondary education (ISCED 2). HAVO and VWO still have a three-year basic secondary education component. Choices for the set subject combinations to be followed in the upper school are only made at the end of the third year (see also below).
In VMBO, pupils have the choice of four learning programmes: the theoretical programme, the combined theoretical and vocational programme, the middle management vocational programme and the basic vocational programme. The first three learning programmes lead to the professional training course or middle management training in secondary vocational education (the theoretical learning programme also leaves open the option of transferring to the second stage of HAVO); the basic vocational programme leads to the vocational training course in secondary vocational education. The following four sectors are distinguished within VMBO: care/welfare, technology, economics and agriculture. Depending on the sector or the learning programme, a pupil makes his or her choice from the following five compulsory subjects:

- Dutch;
- English;
- Social studies 1;
- Physical education;
- Arts subjects 1 (drawing/dance/music/audiovisual education).

In addition, pupils undertake two sector subjects, depending on the chosen sector (see table 3.3) plus one or two optionally chosen (sector-specific) subjects depending on the learning programme chosen. These are two general subjects in the case of the theoretical programme, one general and one vocationally linked subject for the combined programme, and one general subject for the middle management and basic vocational programmes.

Table 3.3 Compulsory subjects per sector

Sector	Care and Welfare	Technology	Economics	Agriculture
Compulsory elective subjects				
Subject 1	Biology	Mathematics	Economics	Mathematics
Subject 2	Mathematics, social studies, History or geography	Physics and chemistry 1	Mathematics or a (elective) second modern language (elective)	Biology or physics and chemistry 1

When it comes to upper secondary education, the Netherlands has three ISCED 3A programmes and two ISCED 3C programmes. The ISCED 3A programmes are the first to be discussed below.

ISCED 3A programmes

The upper school element of HAVO (years 4 and 5) and VWO (years 4, 5 and 6) are regarded as part of the second stage of secondary education. The new approach to learning at the upper secondary level emphasising independent study (an educational concept known in Dutch as the Studiehuis) has been applicable to the upper school elements of both HAVO and VWO since 1999; this concept produces the following school graduation profiles:

- science and health;
- science and technology;
- economics and society;
- culture and society.

There is a common learning section that applies to all of these set subject combinations. Each subject combination also makes a distinction between compulsory specialist subjects and optional subjects. In the upper school segment of HAVO, a total of 3200 hours are set aside for each subject combination. Of this, 1480 hours are spent on the common section, which consists of the following subjects: Dutch language and literature, English, a second modern language I, general science, history and social studies, culture and the arts I and physical education I. 1160 hours are available for the compulsory specialist subjects, from which four subjects must be taken. The optional component contains 560 hours, part of which must be spent on examination subjects. In the case of HAVO, the examination subject allocation was originally set at 200 hours but this was subsequently reduced under temporary mitigation measures. Proposals for modifications to the independent study concept

are now pending. There is to be a review starting in 2005 in order to prevent the system from becoming overloaded. Where the upper school component of HAVO is concerned, it means that the programme will be rounded off with the assessment of eight components that are regarded as equivalent, namely: Dutch, English, three compulsory specialist subjects, two examination subjects and the optional subjects plus a combination mark. This relates to a combination of the shorter general education subjects taken from the common section of the programme. General science will then no longer be compulsory for the two science profiles, while social studies will no longer be compulsory for the other two profiles. The hours devoted to the common section of the programme will be reduced to 1120, while the optional component hours will be increased to 960. The compulsory component will continue to account for 1120 hours.

The structure for VWO is similar to that for HAVO. 4800 hours will be available for each subject combination in the upper school segment of VWO, 1960 hours of which must be spent on the common section of the programme. In the case of VWO, this common section will consist of: Dutch language and literature, English language and literature, French language and literature I, general sciences, culture and the arts and physical education. The compulsory specialist subjects will have 1840 hours, in which four specialist examination subjects must be studied. The elective section covers 1000 hours, of which 280 must be spent on examination subjects. This requirement has also been reduced in the context of temporary mitigation measures to only a single (half) subject. In the case of the gymnasium the allocation is 760 hours, since these pupils are required to spend 480 hours on Latin and Greek, with only one of these qualifying as an examination subject. The modifications to VWO to be introduced in 2005 mean that the programme will then conclude with nine equivalent components: Dutch, English, a second modern language, three specialist subjects (one of which must be mathematics), two examination subjects in the optional section of the programme and a combination mark. As in the case of the upper school HAVO segment, general science will no longer be compulsory for the two "science" combinations and social studies will no longer be compulsory for the two "social science" combinations. Under the proposed changes the common part of the programme and the specialist component will be reduced to 1920 and 1480 hours respectively and the optional section of the programme will be increased to 1400 hours.

Where the upper school HAVO and VWO segments are classified as ISCED 3A programmes with a general orientation, the middle management programme in secondary vocational education will be classified as an ISCED 3A with a vocational orientation. The nominal duration of a middle management programme has been established at 6400 study hours or four years. Actual duration may vary between three and four years however, depending on the previous educational attainments of participants joining the programme (VMBO or in some cases three years of HAVO or a programme at a lower level within the KSB). Depending on the learning route chosen, the share of

the programme taken up by practical occupational training will range from a minimum of 20% to a maximum of 60% of total curricular time (BOL). There are currently approximately 177 middle management qualifications distributed over the four sectors (technology, care and welfare, economics and green issues). Both the middle management programmes and the upper school segments of HAVO and VWO have an ISCED level 2 qualification as the minimum entrance requirement (a VMBO diploma or a HAVO/VWO transfer certificate from year 3 to year 4; this accordingly does not apply to the assistant programmes).

ISCED 3C programmes

The two ISCED 3C programmes differentiated in the Netherlands are the professional training course (KSB level 3) and the basic vocational training course (KSB level 2).

The professional training courses in secondary vocational education have a nominal duration of 4800 hours, or three years. Depending on previous educational attainments, the professional training course can be completed in two years if participants have a qualification from the compatible programme at level 2. In some cases, these courses may have a nominal duration of four years, when based on the content of the programme it is decided that the curriculum needs four years, though in view of the "format criteria" (responsibility, complexity, transfer) it is classified as a level 3 programme with regard to "difficulty". Where time spent on practical vocational training is concerned, the same rules apply as for a level 4 programme. At the present time there are 166 different qualifications defined at level 3. The entry requirement for a level 3 programme is at least an ISCED 2 qualification (VMBO diploma or HAVO/VWO year 3 to year 4 transfer certificate; again with the exception of the assistant programme) or a completed basic vocational education programme.

The basic vocational training programme or level 2 programme has a nominal duration of 3200 hours (two years). In exceptional cases this can also be a three-year programme with a nominal study duration of 4800 hours, though still classified as level 2 for the reasons given above. The option of completing the programme in less time is not strictly speaking excluded (following completion of a similar level 1 programme for instance), but these instances are more the exception than the rule. As regards the amount of practical vocational training, the same applies here as for other programmes in the qualifications structure. Where no compatible level 1 programme exists in the qualifications structure concerned, level 2 programmes must be offered without entrance qualifications. Entrance requirements must be set for level 2 programmes where a compatible level 1 programme exists. Participants in this case must either have a level 1 qualification or have completed a basic vocationally linked programme in VMBO. There are currently 180 qualifications at level 2.

3.2.4 The Czech Republic

Compulsory education begins at the age of six in the Czech Republic and lasts for nine years. The period of compulsory education is divided into two phases, an initial phase of five years after which a certificate can be obtained and a second phase of four years for which a second certificate can be obtained. Obtaining this certificate is a condition for entry into regular upper secondary education, usually at the age of 15. An exception to these rules are pupils who make the transfer to a gymnasium with an extended programme (eight years followed by a further six years) directly at the end of the first phase or after a further two supplementary years. The Czech Republic has a national curriculum for the integrated "basic education" component (primary school and lower secondary education) that specifies the subjects, learning objectives, content and class curricula. The subjects taught in the first phase (the first five years) are: Czech, mathematics, local environment, music, art, practical subjects and gymnastics. A modern language and history/geography are added from the fourth year. While content and learning objectives for lower secondary education are specified nationally, it is up to head teachers to determine how these are to be distributed over the class schedules. This distribution must take place within the preconditions that apply to the recommended number of lessons per week. Compulsory subjects for the final four years of primary education are: Czech, a modern language, mathematics, physics, biology, geography, history, social studies, domestic science, music, art, practical subjects and sport. Chemistry is added from the eighth year and pupils can also take elective subjects from the seventh year onwards. The recommended number of lessons a week is set for the full duration of primary education. This is approximately 15 hours a week in the first year, gradually increasing throughout the period of primary education to 22.5 hours a week in the last two years. School managers are at liberty to increase the number of hours in particular subjects or to adopt non-compulsory subjects into the curriculum. The Czech Republic has only ISCED 3A and 3C programmes in upper secondary education.

ISCED 3A programmes

There are three types of 3A programmes, all of which prepare for the matu-rita-exam, a pass in which provides access to higher education in principle. The first type of programme is the gymnasium. As already said, pupils can make the transfer to the gymnasium after five, seven or nine years. The first two options, for which pupils must have gained the first certificate or the first certificate plus two years of supplementary primary education, are mainly designed for better performing pupils. Teaching in Czech Republic schools is partly bilingual. Pupils who follow the regular route and make the transfer to the four-year gymnasium programme at the end of the nine years must have obtained both of the certificates and must pass an entry examination. The curriculum contains compulsory (general) subjects and four "compulsory" elective subjects (general) determined by the Ministry of Education. The gymnasia are allowed to enhance their individual profiles further by adding

subjects taken from the twelve nationally agreed specialisations, which in point of fact constitute no part of the compulsory core curriculum. The lesson schedules have a minimum of 31 lesson hours per week (each lasting 45 minutes) but a rector can decide how many hours are actually taught and whether or not extra lessons should be given. The curriculum has approximately 14 compulsory subjects, though final examinations are only taken in four of these, namely: Czech, a modern language and two elective subjects. After passing the maturita exam however, pupils who wish to go on to higher education (university or higher professional education) still need to pass an entrance exam. Although strictly speaking the gymnasium provides no labour market relevant qualifications, it is estimated that something like 15 to 20% annually of those who have passed the gymnasium examination enter the labour market, part of which group however will still attempt to gain access to higher education after a number of years of work experience (or unemployment). In 1999, 53% of university students and 28% of students in higher professional education institutes were in possession of a gymnasium diploma.
The second type of programme is offered by secondary technical schools. These are the four-year programmes that also lead to the maturita examination. There are currently 294 different four-year programmes which train students for a vocational qualification and prepare them for the maturita examination at the same time. Approximately 40% of the overall curriculum (an average of 32 lessons a week) is devoted to general subjects (Czech language and literature, a modern language, mathematics, physics and chemistry, social studies, history and sport). The rest of the time is spent on vocationally linked theory and gaining practical skills. This practically orientated schooling mainly takes place in practical training facilities linked to the educational institutes. A work experience placement of at least two weeks takes place in principle during the second and third years, but obtaining work experience places is a major problem in practice.
The third type of programme is offered by secondary schools specialising in vocational training (secondary vocational schools). There are currently 106 programmes within the secondary vocational school system that lead to the maturita examination. In these programmes, 40% of the curriculum time is spent on general subjects (including Czech, history, mathematics and science), 30% on vocationally linked theory and 30% on practical skills. As in the case of the secondary technical schools, practical training within the schools programmes can take place in-company, but most of this training is catered for by the school itself. The programme concludes with both a final examination and the maturita examination, thereby providing students with a double qualification. Where the gymnasium programs are classified as ISCED 3A with a more general orientation, four-year programmes in the secondary technical schools and secondary vocational schools are classified as ISCED 3A with a vocational orientation.

ISCED 3C programmes

Upper secondary education in the Czech Republic distinguishes between three types of 3C programme. These are the two or three-year programmes offered by secondary technical schools and the two or three-year programmes offered by the secondary vocational schools.

The two or three-year programmes in the secondary technical schools were introduced in 1990, though these programmes represent more the exception than the rule, particularly the two-year programmes. The programmes prepare students for relatively simple administrative and practical occupations. The three-year programmes comprise both general and vocationally linked subjects. Students are given a certificate after following the programme successfully. So-called follow-up programmes lasting a further year are organised for those students who wish to take the maturita examination (these follow-up courses however are classified as ISCED 4A).

The secondary vocational schools mainly offer three-year vocational training programmes (here also, two year courses are an exception). There are a total of 189 vocational programmes, preparing students for vocational qualifications as defined in the official occupations list. Students who successfully complete the programme receive an "apprenticeship system certificate" at the end of it. On paper, the three-year programmes consist of 30-35% general subjects (Czech, history, mathematics and science), 20-30% vocationally linked theory and 35-45% practical schooling. In practice (based on data supplied by Czech experts on a specific package of programmes; see also chapter 3) this appears to vary from less than 25% of curriculum time spent on general subjects to more than 37%. The same applies for the amount of time spent on general and vocationally linked subjects combined; this varies from less than 50% to more than 60%. Here, too, while practically orientated schooling can in principle take place in-company, it is overwhelmingly catered for within the school, given the problem of obtaining practical training places. There are clearly marked differences between the programmes however; in some other programmes only a very small part of the practically orientated schooling takes place within companies or institutions (less than 10%), while in other programmes this percentage rises to a quarter or even more than a third of the overall curriculum time allocated. The average number of lessons add up to 33 hours (practically orientated lessons last for an average of 60 minutes, other lessons an average of 45 minutes). The programme by programme breakdown according to the Czech experts shows there is an average bandwidth ranging from 31 hours a week to more than 34 hours a week. The school year consists of 40 weeks in all cases. Pupils who still wish to pass the maturita exam can also take a follow-up course that will give them access to higher education.

ISCED 3C programmes in the Czech Republic are mainly given by vocational secondary schools and are overwhelmingly three-year programmes. The majority of young people (two thirds) however elect for programmes that prepare for the maturita examination, with an overwhelming majority of these choosing a programme in a secondary technical school. Of those who initially

sign up for a programme that does not prepare them for the maturita examination, an estimated 20-25% later enrol in a follow-up course that prepares them for this examination.

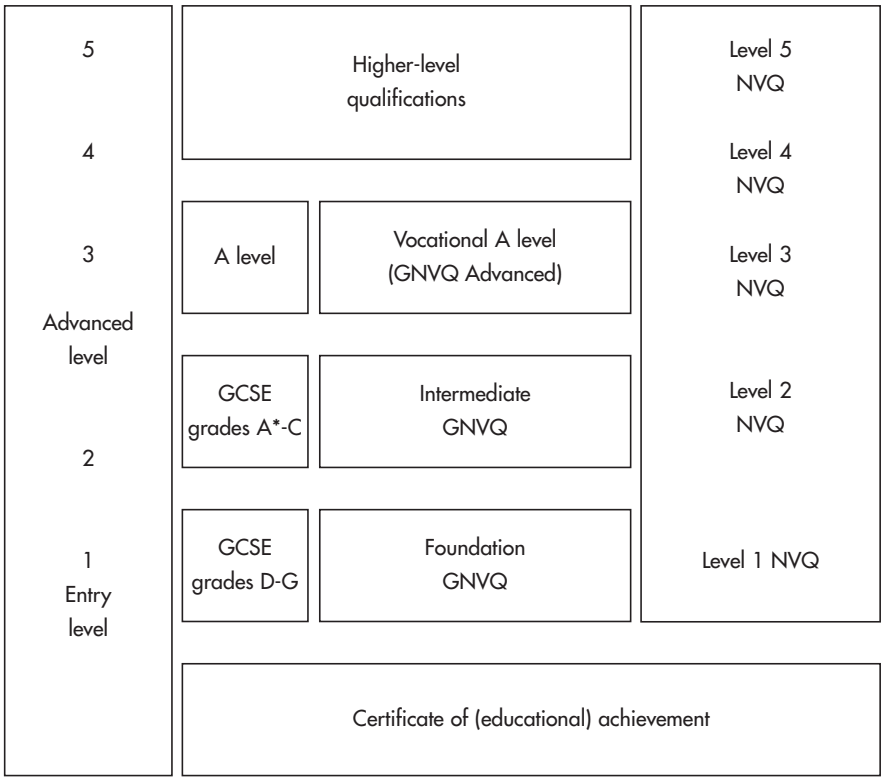
3.2.5 The United Kingdom, England in particular

This section focuses mainly on the education system in England. In major outline, statements made about the English system also apply to Northern Ireland and Wales, but the Scottish system is different and has individual characteristics. The limitation of the study to England seemed to be justified, given the complexity of the British system.

The English education system has undergone a number of necessary reviews over recent years and continues to be in a process of change. Compulsory education begins at the age of five and ends at the age of 16. A national curriculum now applies throughout the years of compulsory education and this is divided into four phases, the so-called "Key Stages". Key Stage 1 covers the first two years of learning in primary school and Key Stage 2 the final four years of primary school. Key Stage 3 covers the first three years of secondary education and Key Stage 4 finally the last two years of secondary education. The compulsory subjects in Key Stages 1 and 2 are English, mathematics, science, gymnastics, "design & technology", information and communication technology, history, geography, music and "art & design". Key Stage 3 introduces a modern language. Key Stage 4 has less compulsory subjects (English, mathematics, science, gymnastics, design & technology, information and communication technology, a modern language and commencing from September 2002, "citizenship". The reduced number of subjects is intended to give pupils the opportunity to study additional vocationally linked subjects if they so wish or to give schools the opportunity of placing poor performers on specific work-related learning routes. This at the same time allows pupils to drop one or two subjects from the compulsory part of the programme (the options are science, design & and technology or a modern language). Key Stage 4 and the General Certificate of Secondary Education (GCSE; see also below) are in a state of mutual transition in the sense that key stage 4 now prepares for GCSE examinations and the GCSEs no longer constitute a "programme" in the same way as before. In contrast to the other countries in this study, the end of (full-time) compulsory education in England does not mark the transition between the first and upper secondary education. This transition takes place at the age of 14 on transfer from Key Stage 3 to Key Stage 4. Pupils are tested at the end of Key Stage 3 and on successful completion of the test are given the "certificate of (educational) achievement". They then complete compulsory education in Key Stage 4 until the age of 16. The minimum number of lessons recommended for Key Stages 3 and 4 is 24 hours a week. Given the stratification of the English education system and the fact that the different 3A and 3C programmes do not exist side by side but build sequentially on each other, a

diagrammatic overview of upper secondary education and the adjoining higher education is given in figure 3.1.

Figure 3.1 National qualifications framework in England



ISCED 3A programmes

Four types of ISCED 3A programme are distinguished, one with a general orientation and three with a vocational orientation. The general ISCED 3A programme is the "General Certificate of Education" (GCE) A/AS level. These programmes were reviewed in November 2000 and from then on all A-level programmes have consisted of six units, with the first three units being individually redefined as an independent qualification, the so-called "advanced subsidiary" (AS). The introduction of the AS was intended to provide pupils with the possibility of achieving a qualification as early as the end of the first year of study and to reinforce the width and flexibility of the post-16 programmes.

The GCE A/AS level is based on the principle of "single subject" examinations and in theory pupils can take any number of subjects or elect for any combination of subjects. Most pupils take between two and four subjects on average. The introduction of the AS level has further increased the flexibility of the system and the free choice of pupils and has also reinforced in principle the system of modular testing (no subject examinations after the first two years, more interim subject closures). Students are strictly speaking allowed to take the same subjects at A level after passing the AS level while going no further than the AS level in other subjects, an arrangement, which when all is added up, still amounts to completion of the subject at A level (an examination result of "A" at AS level for instance contributes five points and an "A" at A level 10 points; to gain the same number of points therefore, more subjects would have to be concluded at AS level). Pupils must at least have completed a programme at the ISCED 3C level in order to gain access to the A/AS level. Pupils can choose from eighteen subject areas, the core definitions for which have been developed by the "Qualifications and Curriculum Authority" (QCA). The examining bodies that administer the GCE A/AS level are required to keep to the core definitions for each subject specified by the QCA in developing their syllabuses. The eighteen subject areas are biology, economics, history, business studies, English language and literature, mathematics, chemistry, English literature, modern languages, classical history (civilisation), geography, physics, Greek and Latin, general studies, sociology, ICT, government and politics and Welsh.

Until recently, the first vocationally linked programme at ISCED 3A consisted of the "General National Vocational Qualifications" (GNVQ) Advanced. These have now been replaced by the so-called "Vocational Certificate of Education" (VCE), with the aim of interesting more pupils in a more vocationally linked learning route (and also with the aim of enhancing "parity of esteem"), although the GNVQs already constituted the middle way between general secondary education and the more vocationally linked NVQs. GNVQs are also regarded as "vocationally related qualifications", NVQs are regarded as "occupational qualifications". A full "advanced GNVQ" comprises six units (equivalent to GCE A level), though there are also "advanced GNVQs" consisting of 12 units. A twelve unit structure was adopted for the introduction of the VCEs, gaining a VCE being equivalent to gaining two A levels. The VCE in point of fact has a "catch", represented by a distinction between the award of a VCE AS level and a full VCE (designated as a double award VCE). The advanced GNVQ and the VCE are offered in the following broad fields: art and design, land and environment, business, recreation and tourism, the travel sector, the construction sector, industrial production, mechanical engineering, media and communications, health care and welfare, performing arts, hospitality, trade and distribution and science. No further specifications as regards the details of the programmes are given but the ISCED mappings indicate two years as the typical programme duration. The estimate is that pupils will spend between 20 and 25 hours a week in school, 18 of which hours will be

devoted to intrinsic subject matter, with the rest of the time being spent on supplementary programme components (keyboarding skills for instance). Practical vocational training in an outside organisation or within the school itself does not constitute a compulsory part of the course in the case of advanced GNVQs and the VCE. The QCA's estimate is that most educational institutions have marked preferences for keeping practical training in their own hands and for providing this training in house. For each of the GNVQs, and this applies equally to the NVQs, the awarding body specifies what units are compulsory and what compulsory elective units must be completed so as to gain the full qualification.

The second type of vocationally linked ISCED 3A programmes are those that prepare pupils for a National Vocational Qualification (NVQ) level 3. NVQs are based on "standards of competence" developed by the so-called "National Training Organisations" (NTOs, which mainly represent employers). The NVQs are subsequently developed by the "awarding bodies" (responsible for awarding the qualifications) on the basis of these standards. Prior to the NVQs actually being introduced into the market they were assessed by the QCA as regards their conformity to a number of criteria. The NVQs are not in fact the only vocationally linked qualifications available. In addition, there is a large number of qualifications that have been developed on either a sector or regional basis in order to meet specific demand. Part of these non-NVQ qualifications do in fact constitute part of the "National Qualifications Framework" (NQF), which comes under the auspices of the QCA. These are mainly qualifications developed by the Business and Technology Education Council or that make up part of the City and Guilds Diploma in Vocational Education. The estimate is that approximately 50% of these qualifications are covered by the NQF, though no details are available regarding the other qualifications offered outside of the NQF. The NQF embraces a total of 455 qualifications at level 3, distributed over the following areas: care of animals, plants and the environment, mining/ mineral excavation, building and construction, engineering, industrial production, transport, goods and services, care, welfare and security, communications and "development and reinforcement of knowledge and skills".
As in the case of the GNVQs , there are no hard and fast rules when it comes to the content of the programmes that lead to an NVQ level 3. First of all, the NVQs were mainly developed with the idea they would represent a learning route that would be fully work based. In view of their only limited initial success, the NVQ programmes are now also offered by educational institutions, particularly by the "Further Education" (FE) colleges. How they give shape to the programmes and to what extent they pay regard to practical vocational training is a matter for institutions themselves. FE colleges are also likely to have fixed preferences for keeping arrangements in their own hands and for offering practical training in workshops or simulated environments on their own premises. This arrangement means that in principle there is little that can be said regarding the duration of programmes. If however we were to draw an

analogy with the GNVQ Advanced (structurally described as equivalent), an NVQ programme would take an average of two years.

The fourth and final vocationally linked programme is the so-called Modern Apprenticeship. This is a three to four-year programme that primarily prepares participants for an NVQ level 3 by means of a work based route. A policy distinction is made between the "foundation modern apprenticeship" and the "advanced modern apprenticeship", under which the advanced version prepares candidates for level 3. The "foundation modern apprenticeship" is regarded by the QCA as a perpetuation of the older shorter programmes under a new name, though these routes do not actually lead to a qualification at ISCED level 3 (ISCED 2 at most). In contrast to the advanced GNVQs, the so-called key skills still form a compulsory part of the "Modern Apprenticeship" programmes. Key skills were introduced in the second half of the nineteen nineties as a separate subject so as to ensure pupils developed skills in what were regarded as key areas (skill assignments on number, IT, communications, cooperation, improving candidates' individual learning skills and performance, problem solving). The introduction of key skills applied to both GNVQs and A levels, but in contrast to candidates who followed a GNVQ programme, those who elected for the A level route could not fail their courses on account of key skills. Commencing from the 2001-2002 school year however, key skills as a compulsory subject was also removed from GNVQs, since it was considered they represented an obstacle to many candidates. In point of fact the completion of at least one key skill remains compulsory under the terms of the financing arrangements for the programmes (provided by the "Learning and Skills Council"). Key skills are therefore still compulsory in the Modern Apprenticeship. Generally speaking, the dropout rate from this training route is extremely high (an average of around 60%). This high level of premature abandonment of the programmes is caused not only by the compulsory key skills, though these certainly have a part to play. Pupils wanting to register for any of the three vocationally linked ISCED 3A programmes must have completed a programme at at least the ISCED 3C level.

ISCED 3C programmes

In the ISCED 3C programme category, England has one programme with a general orientation, one programme with a work preparation orientation and three vocationally linked programmes.

The first general programme is the "General Certificate of Secondary Education" (GCSE) and this is the one that includes the period of compulsory education. The compulsory subjects (as part of the National Curriculum) for 14-16-year-old pupils are English, information technology, mathematics, a modern language, science, sport, design and technology and commencing from September 2002, "citizenship" (plus Welsh, for non-Welsh language schools in Wales). Pupils take on average eight or nine subjects (courses). Examinations use a scoring system ranging from A* to G, the first letter

denoting the highest score and the last the lowest. Where a pupil is unable to achieve even the G standard, he or she receives no certificate for the subject concerned. The end result attained is derived from the total number scores attained. Scores in the range A* to C are regarded as representing a higher level than scores in the D to G range (equivalent to an intermediate GNVQ or a foundation GNVQ respectively; see below). GCSE short courses lasting for up to a year at the most are also in fact recognised. A GCSE short course has the value of half a GCSE. To enter GCSE courses candidates must have the certificate of (educational) achievement, which marks the conclusion of lower secondary education.

The second and third programmes are the foundation GNVQ (work preparation) and the intermediate GNVQ (vocationally linked). These programmes are discussed together here, given their close interrelations. Although where level is concerned these are regarded as equivalent to both GCSE A*-C and GCSE D-G (see also figure 3.1). The programmes are mainly aimed at young people aged 16 to 19. There is one difference where this point is concerned however. The examinations for the foundation and intermediate GNVQ categorise results into three levels, i.e. pass, merit pass and distinction. A distinction in an intermediate GNVQ results in marginally less points being added to the list of points qualifying for access to further study (at higher education level) than does a GCSE A* (7.5 points as opposed to 8 points). Both the foundation GNVQ and the intermediate GNVQ have a four unit structure. All these four units must be completed in order to gain a full GNVQ. Both the foundation GNVQ and the intermediate GNVQ are offered in the same fields as the advanced GNVQs. Commencing from the 2002/2003 school year the foundation GNVQ and the intermediate GNVQ will be converted into so-called vocational GCSEs in order to make them more attractive and to increase parity between learning routes. There are no entrance requirements for the foundation level GNVQ. For entry to the intermediate GNVQ programme, candidates must have completed a qualification at the ISCED 3C level. According to the ISCED mappings, the typical duration of both the foundation GNVQ and the intermediate GNVQ is one year.
A further specific form of the GNVQ is the so-called Part One GNVQ, developed during the mid nineteen nineties for pupils aged 14 to 16 who feel less attracted to studying for GCSEs. These programmes have been available in all secondary education schools since 1998. A Part One has been developed for both the foundation GNVQ and the intermediate GNVQ, albeit covering a more limited range of studies. These Part One GNVQs are not included in the ISCED mappings however.

The two remaining vocationally linked ISCED 3C programmes are the NVQ 1 and NVQ 2 (or work which leads to an equivalent of these). The NQF currently embraces 125 NVQ 1 qualifications and something more than 430 NVQ 2 qualifications. Broadly speaking, the same rules apply to NVQs at

level 1 and level 2 as to the earlier discussed NVQ 3 qualifications. There are no admission requirements for access to a "programme" leading to an NVQ 1 qualification. Completion of an ISCED 3C programme is the entrance requirement for a programme leading to an NVQ 2 qualification. Strictly speaking, nothing has so far been established regarding NVQs as far as programme content and duration is concerned; the actual competence shown by students serves as the yardstick. It means that in principle nothing can be said regarding the duration of these programmes taken in comparison with programmes in other countries. If we again follow the analogy with the GNVQs however, gaining an NVQ 1 or NVQ 2 takes a year in each case. The cumulative duration for gaining an NVQ 2 would accordingly be two years.
It emerged from an interview with one of the experts in the United Kingdom that the United Kingdom currently provides no data to bodies such as Eurostat and the OECD, due to differences in interpretation that exist regarding the classification. The argument in the UK is that GCSEs represent a respectable level of performance and that this is certainly the case when it comes to six or seven GCSEs with a high pass mark (A*-C). The UK contends that this can be regarded as equivalent to ISCED 3 completion. Since the GNVQ and NVQ programmes are taken as being more or less equivalent to GCSE levels and to the A/AS level, they are to be treated as equal. Were this reasoning to be applied consistently however, it would necessarily result in the D-G range of the GCSE, plus the foundation GNVQ and the NVQ level 1 no longer being regarded as ISCED 3 (completion).

3.3 ISCED 3 programme comparisons

3.3.1 Introduction

The previous section has described the educational systems, particularly covering upper secondary education, in the five countries included in this study. What clearly emerges from this is the fact that the systems show significant contrasting features and differentiate themselves to a greater or lesser extent. This section first presents a comparison of the learning routes that lead to an ISCED 3 qualification (see 3.3.2). This is followed by a comparison of upper secondary education in the five countries, based on a number of indicators. This is accompanied by an examination of ISCED 3A programmes, the ISCED 3 student population in the five countries and (vocationally linked) ISCED 3C (short) programmes.

3.3.2 Admission to upper secondary education

When making comparisons between the five countries, we are immediately confronted by some classification problems, one of which crops up right at the start of the child's school career. In Germany, France, and the Czech Republic, compulsory education commences when children reach the age of six. In the Netherlands and in England, compulsory education starts at the age of five. In contrast to the situation in England however, in the Netherlands not only is school year 1 of primary education classified as "preschool education" (ISCED level 0) but school year 2 as well. In England the first year of primary education is classified as ISCED 1, while preschool provisions, such as nursery schools and play schools for toddlers, are classified as ISCED 0. The latter arrangement also applies to Germany, France and the Czech Republic. Though the Netherlands certainly has equivalent provisions, these are not included in the ISCED mappings as such. Participation in these kinds of education linked preschool provisions starts at the age of three in Germany and the Czech Republic and at the age of either two or three in the other countries. If the group of three-year-olds is taken as the point of departure, participation varies from 45% (Germany) to nearly 100% (France). For the four-year-old group, approximately 78% attend preschool education linked provisions in Germany, approximately 86% in the Czech Republic, something like 95% in England and nearly 100% in the Netherlands and France.
Leaving aside for a moment the differences between the countries as to the inclusion or otherwise of these provisions in the ISCED mappings, the question arises of how to deal with differences in classification between the Netherlands and England. On the one hand, when calculating cumulative programme duration (in this paragraph and the following paragraphs), there is much to be said for taking commencement of compulsory education as the starting point. On the other hand it can be argued that comparisons should be confined to the starting age for ISCED 1 programmes. When all is said and done, in none of the countries concerned is participation in preschool education programmes compulsory in principle. This however is responsible for creating a curious situation for the Netherlands, whereby participation in school year 2 of primary education is required under compulsory education legislation, but this year has to be disregarded when it comes to cumulative programme duration, given that it is still classified as ISCED 0. The choice has been made to follow the first line of reasoning, namely that in the rest of this section, when calculating cumulative programme duration for the Netherlands, the age at commencement of compulsory education will be taken as the starting point in the same way as for the other countries. At the same time, the consequences of disregarding school year 2 of primary education in the Netherlands will be underlined.
Table 3.4 provides a survey of the starting and ending dates of compulsory education in the different countries, the age at which transition is usually made between lower and upper secondary education, and cumulative duration

in terms of number of years of schooling from the beginning to the end of the period of compulsory education. The partial compulsory education requirements in Germany and the Netherlands are taking into account when calculating cumulative duration. The three-year partial compulsory education requirement in Germany is set at 1.5 years for this purpose and the partial compulsory education requirement in the Netherlands at 0.5 years. In the case of German federal states for which a full compulsory education period of 10 years applies, the cumulative duration comes to 11.5 years. In the case of the Netherlands, assuming school year 2 of primary education is disregarded (classified as ISCED 0), the cumulative duration is 10.5 years.

Table 3.4 **Compulsory education, transition between lower and upper secondary education and cumulative duration in five countries**

Country	Compulsory education Start	Compulsory education End	Transition age lower-upper s.e.	Cumulative duration (start-end c.e.)
Germany	6	18	15-16	10.5
France	6	16	15	10
Netherlands	5	17	15-16	11.5
Czech Republic	6	15	15	9
UK/England	5	16	14	11

There is therefore an element of spread in the number of years of compulsory education. It is also striking that the transition from lower to upper secondary education takes place fairly early in England, whereby the conclusion of statutory period of compulsory education (with a GCSE, regardless of the score) comes to be regarded as "full completion of upper secondary education" at the age of 16. In the case of France of course it is true that the first year of upper secondary education is still part of the statutory period of compulsory education, but this year is already counted as part of "upper secondary education". The same applies to fourth year of HAVO/VWO in the Netherlands (transition is usually made at age 15); in the case of pupils who complete VMBO first before entering secondary vocational education, this transition generally takes place at age 16, after completing four years of lower secondary education. Similarly in Germany, what is regarded as part of "upper secondary education" depends on the learning route followed: a dual programme (or other vocational programme) after Hauptschule (i.e. after nine years), counts as "upper secondary education", but where the same programme is taken after Realschule or the first phase of the gymnasium, the period that counts as "upper secondary education" only starts from the end of ten years.

Table 3.5 compares data on duration, scope and "difficulty" of programmes in lower secondary education and the typical ages at which this first phase is started.

Table 3.5 **ISCED 2 programmes according to starting age, duration, number of compulsory (elective) subjects and number of lesson hours per week**

Country	Starting age	Duration	No. of compulsory (elective) subjects	(Average) lesson hours wk.
Germany	10	4	13-15	29
France	11	4	7-10	26-27
Netherlands	12	3-4	12-15	26-27
Czech Republic	11	4	14-16	21.5
UK/England	1	3	8	24

Where it comes to the "width" of the curriculum in lower secondary education, this is characterised in Germany, the Netherlands and the Czech Republic by being relatively broadly based, while the number of subjects on the curriculum in France and England is more limited. In the case of England these are the subjects compulsory for Key Stage 3, i.e. the minimum number of subjects tested in the Certificate of (educational) achievement. The number of subjects taken by better performing pupils can be higher.
The number of hours pupils spend in school also differs. The duration of the lessons is taken into account when calculating the number of hours (45 minutes in the Czech Republic and 50 minutes in the Netherlands for instance), together with any differences in the number of lessons at the start of lower secondary education and in the final years of this phase (averages calculated over the number of years). Here again there are differences between countries, though it is difficult to attach conclusions to them. The real question is what is better: relatively more hours for less subjects or relatively more subjects in less hours. The most certain conclusion to be drawn is that there are differences in "width" and "intensity" in lower secondary education.

3.3.3 Upper secondary education

The point from which pupils start in the transition from lower to upper secondary education differs from country to country. These differences relate not only to the hypothetical "typical" starting age but also to the number of years of education pupils have followed prior to the transition. This varies from eight

years in England, nine in the Czech Republic and France, nine or ten years in Germany and ten or eleven years in the Netherlands. Here again, if school year 2 of primary education is disregarded, the cumulative duration for the Netherlands is nine to ten years.
First to be presented here is a comparison of ISCED 3A programmes in the different countries so that a closer look can then be taken at ISCED 3C programmes. ISCED 3B programmes are not dealt with separately, or at least not in the comparative sense, given that they are offered in only two of the five countries. In France this mainly concerns BacPro, which accounts for only a relatively modest share of the overall student population at ISCED level 3 (8%). In Germany on the other hand these programmes represent a very substantial share of the student population at level 3; namely students following a vocationally linked programme (either a dual programme or a schools programme). The total number of pupils involved is 2,656,400 (1999 figures), of which 1,899,000 follow a part-time programme and 1,698,300 a dual programme (meaning that 78% of the student population followed a vocational programme in 1999). Given the fact that centrally available data relates mainly to the dual vocational programmes, the comparison will concentrate on these programmes, with the result that dual programmes will figure in comparisons between ISCED 3C programmes, despite them being classified as ISCED 3B.

ISCED 3A programmes

Table 3.6 compares ISCED 3A programmes (independent of their linkages, as indicated in the fifth column). With the exception of England, the admission requirement is a completed ISCED level 2 programme, although this requirement is not formalised through examination in all countries. The transition is not formalised by examination in Germany, France and the Netherlands, where it relates to HAVO and VWO, as long as the transfer takes place within the same educational category. This being so, the results achieved up to that point are assessed by teachers or committees set up for this purpose (such as the French "conseil de classe"). Transfers from one category of school to another might well be conditional on passing an examination (from Realschule to (Fach)Gymnasium for instance or from the theoretical programme in VMBO to HAVO 4). In the case of the Netherlands a VMBO diploma (or a transfer certificate from HAVO/VWO 3 to HAVO/VWO 4) is required for transition from VMBO to the middle management programme in secondary vocational education.

For upper secondary education in the Czech Republic, students must be in possession of the school certificate gained at the end of the ninth year in all cases and they must also take an entrance examination for admission to the gymnasium. The only entrance requirement for ISCED 3A programmes in England is a minimum ISCED level 3C qualification.

Table 3.6 **ISCED 3A programmes (general, pre-vocational and vocationally linked) according to entrance requirements, duration, final examination subjects and orientation/intention/further study options**

Country	Entrance req.	Dur. (yrs.)	Examination	Orientation	Further study options
Germany					
Gymnasium	ISCED 2	3	4 subjects	General	ISCED 5A
Fachgymnasium	ISCED 2	3	4 subjects (of which 1 vocationally linked)	General	ISCED 5A
France					
BacGen	ISCED 2	3-4	9-10 subjects	General	ISCED 5A
BacTechno	ISCED 2	3-4	9-10 subjects	General/ prevocational	ISCED 5B
Netherlands					
HAVO	ISCED 2	2	8 subjects	General	ISCED 5A
VWO	ISCED 2	3	9 subjects	General	ISCED 5A
MBO	ISCED 2	3-4	Varies (partial qualifications)	Vocationally linked	ISCED 5A
Czech Republic					
Gymnasium	ISCED 2	4	4 subjects	General	ISCED 5A
Secondary technical education	ISCED 2	4	4 subjects	General	ISCED 5A
Secondary vocational education	ISCED 2	4	4 subjects (of which 1 vocationally linked)	General/ vocationally linked	ISCED 5A
UK/England					
GCE	ISCED 3C	2	2-4 (each 6 units)	General	ISCED 5A
A/AS GNVQ	ISCED 3C	2	6-12 units	Voc.linked	ISCED 5A
A/VCE NVQ 3) (incl. Modern Apprenticeship	ISCED 3C	2-4	Varies	Voc.linked	ISCED 5A

The duration of the 3A programmes and the number of subjects examined differs between the countries. A marginal note on duration must be inserted here with regard to England. Most pupils make a start on these ISCED 3A programmes at the age of sixteen or above; this is about the average age at which pupils in other countries make the transition from lower to upper secondary education. For pupils in England however the admission requirement at ISCED level 3C means that prior to the two-year ISCED 3A programme they already have two years of study at ISCED level 3C behind them. This brings the cumulative duration to four years. What is more, there is the Modern Apprenticeship, which according to the ISCED mappings has a typical duration of between 3 and 4 years, but according to the expert interviewed only 2 to 3 years. In the first instance the cumulative duration would be 2.5 to 3 years (part of the time is devoted to productive work) and in the second 2.5 to 3 years.
The number of subjects with which an ISCED 3A programme concludes differs slightly between the countries. This is not meant to infer that in countries where only four subjects are examined the curriculum in upper secondary education is that much narrower. Both Germany and the Czech Republic have a compulsory curriculum (including compulsory elective subjects) that includes many more subjects or courses. Of these however only a limited number are included in the final examination. It would seem that in England, by contrast, certainly where A/AS levels are concerned, students tend to concentrate on a limited number of subjects as the programme progresses. It must be borne in mind however that the A/AS levels are taken in subject areas that are partly very similar to subjects as we traditionally know them, but that they partly relate to wider subject areas (such as business studies, general studies or sociology). Where the GNVQs and accordingly the Modern Apprenticeships are concerned, these relate to wider subject areas corresponding to the middle management programme in Dutch secondary vocational education. The programmes are therefore mutually comparable only to a limited extent in this respect.

ISCED 3 population in five countries

Tables 3.7 to 3.9 inclusive provide an overview of the distribution of the ISCED 3 pupil population over the 3A-C programmes broken down according to programme orientation. The figures indicated do not relate to the same reference date. Figures for the Czech Republic and Germany reflect the status at the end of 1999. Figures for the Netherlands and France relate to the 2000-2001 school year. Figures for England are taken mainly from QCA reports and where GCSE and the A/AS levels are concerned relate to the number of candidates (in terms of persons) registered for examination at those levels in 2000-2001.

Table 3.7 Participant numbers in ISCED 3A general, pre-vocational and vocational programmes

	3A general				3A pre-vocational				3A vocational				Total participant numbers ISCED 3A	% of full ISCED 3-population
	2y	3y	4y	4y	2y	3y	4y	4y	2y	3y	4y	4y		
Czech R.			93.885								229.532		323.417	67
France		1.484.132											1.484.132	66
Germany		765.800											765.800	22
N'lands	80.600	92.700									184.510		357.810	63
England	560.984								233.012		123.800		917.796	33

Table 3.8 Participant numbers in ISCED 3B general, pre-vocational and vocational programmes

	3A general				3A pre-vocational				3A vocational				Total participant numbers ISCED 3A	% of full ISCED 3-population
	2y	3y	4y	4y	2y	3y	4y	4y	2y	3y	4y	4y		
Czech R.														
France									180,247				180,247	8
Germany										2,656,400			2,656,400	78
N'lands														
England														

Table 3.9 Participant numbers in ISCED 3C general, pre-vocational and vocational programmes

	3A general				3A pre-vocational				3A vocational				Total participant numbers ISCED 3C	% of full ISCED 3-population
	2y	3y	4y	4y	2y	3y	4y	4y	2y	3y	4y	4y		
Czech R.										160,441			160,441	33
France									589,643				589,643	26
Germany														
N'lands									109,489	98,766			208,255	37
England	776,981				68,000				1,052,856				1,897,837	67

In the case of the GNVQs the figures relate to candidates who achieved a particular level during the 1999-2000 school year. For NVQs the figures relate to the number of certificates issued over the 12 months prior to the 31st of December 2001. These figures also include non-NVQ qualifications that nevertheless fall within the NQF. The NVQ 3 level is accordingly counted together with GNVQ advanced (3A vocational, two years or shorter) and NVQ 2 and 1 with GNVQ foundation (3C vocational). NVQ 2 incidentally is more related to the GNVQ intermediate, even though the latter is classified as 3C pre-vocational. It should be noted that the data for both GNVQs and NVQs in this report has been processed in combination with Scottish data (because of the lack of differentiation according to region in the source concerned).
In the case of the NVQs it needs to be borne in mind that these figures include candidates who have already gained one or more units. In that respect these numbers can be misleading, which may provide an explanation for the fact that 60% of the English (and part of the Scottish) ISCED 3 population falls within the ISCED 3C category. This category moreover includes the group of students sitting for the GCSE and therefore following a Key Stage 4 programme. The Modern Apprenticeship is classified provisionally as an ISCED 3A vocational programme with a maximum duration of four years. The extent to which this represents an overvaluation of the programme duration is difficult to say. Data for programme participants here is based on figures for the number of participants in training during 2000-2001. Where the number of participants in training for the Foundation Apprenticeship and under other training measures for (unemployed) young people during that year are concerned, participant numbers are added to the numbers for the ISCED 3C vocational category over a maximum period of two years.

It is impossible to make any further breakdowns in the case of Germany. Where 3A programmes with a general orientation are concerned, these are overwhelmingly three-year. The available data for 3B vocationally linked programmes provides no breakdowns into one, two or three-year programmes. The impression is that one-year programmes make up only a very small proportion of the total. It is impossible to determine the proportionality that exists between the two and three-year programmes based on (centrally) available statistics. The same applies to the relationship between the three and four-year programmes. Provisionally therefore all vocationally linked programmes have been allocated to the three-year or shorter category.
For some other countries the percentages of participants in the 3A, 3B and 3C programmes give a clear picture of the popularity of vocational education when compared to general, non-vocational courses and vice versa. This observation applies to France and Germany in particular. The problem of interpretation surrounding the English data has already been examined in detail above. In the case of the Netherlands, the middle management programme is correctly classified as ISCED 3A vocational in accordance with the ISCED classification rules; if however orientation were to be the primary classification

criterion, 70% of the pupil population would be following a vocational programme as compared to 30% who would be following a general, non-vocational programme. The same applies in a certain sense to the Czech Republic, although the distinction drawn between secondary technical education and secondary vocational programmes in that country is a complicating factor. While these latter programmes also result in a vocational qualification and the maturita as well, that is not the case with the first type of programme (a fact which in itself signifies nothing with regard to the value of the qualification in the labour market).

Some system specific characteristics

Before looking further into the ISCED 3C programmes, there is a need to mention two aspects that make comparison of the secondary education systems in general and ISCED 3C programmes in particular especially complicated. In view here are features or characteristics that are not common to each of the five countries. The first point of concern is "stacking up" of qualifications. Here we concern ourselves not so much with the options available for this practice and the extent to which educational systems offer these options as with the necessity for this kind of stacking. By this is meant the necessity of gaining a particular ISCED 3 qualification before being allowed to start another ISCED 3 qualification. There is no alternative means of access to the ISCED 3 qualification in other words. A survey of this necessity for stacking, which only occurs in France and England, is given in table 3.10.

Another complicating factor is that in three of the countries, certain vocationally linked qualifications can be gained by means of different learning routes. This is the case in France, the Netherlands and England. A survey of this situation is given in table 3.11.

In point of fact, as far as the Netherlands is concerned not all qualifications at all levels can be gained by following both of these routes. BOL is still dominant, particularly for qualifications at level 4 of the qualifications structure. This is not the case for qualifications at levels 1 and 2; at level 2 in particular, it is often rather more usual than not for these qualifications to be offered via BBL. Qualification contracts in France and the option of gaining a qualification purely on the ground of work experience in England will be disregarded in further discussion of the commensurability or otherwise of the ISCED 3C (short) programmes. Both of these arrangements fall to some extent outside of the terms of reference for this study since they concern very specific labour market orientated routes or the recognition of acquired competencies. The lengths of these programmes will differ markedly for instance from their counterparts in the regular educational systems (see for instance section 2.2).

Table 3.10 The necessity for ISCED 3 stacking

Programme	Admission requirement
ISCED 3A general England	
- GCE A/AS	ISCED 3C (particularly GCSE)
- GNVQ-A/VCE-A	ISCED 3C (particularly GNVQ intermediate)
ISCED 3A vocationally linked England	
- NVQ level 3	ISCED 3C (particularly NVQ level 2)
ISCED 3B vocationally linked France	
- BacPro	ISCED 3C (particularly CAP and BEP)
ISCED 3C vocationally linked France	
- Brevet professionelle	ISCED 3C (particularly CAP)
- Mention complémentaire	ISCED 3C (particularly CAP and BEP)
England	
- GNVQ intermediate	ISCED 3C (particularly GNVQ foundation)
- NVQ level 2	ISCED 3C (particularly NVQ level 1)

Table 3.11 Options for gaining qualifications by means of different learning routes in three of the countries

Qualification	Learning route
France	
- 3B vocationally linked: BacPro - 3C vocationally linked: CAP, BEP	Schools route, modern apprenticeship qualification contract, schools route, modern apprenticeship, qualification contract
Netherlands	
- 3A vocationally linked: middle management programme	BOL and BBL
- 3C vocationally linked: professional training, basic vocational training	BOL and BBL
England	
- 3A vocationally linked: NVQ 3 - 3C vocationally linked: NVQ 1 and 2	Schools route, modern apprenticeship, work experience, schools route, modern apprenticeship, work experience

ISCED 3C programmes

We concentrate more specifically in this section on a comparison of ISCED 3C programmes in the five countries, where provisionally we -not entirely justifiably- treat the German vocational programmes as if they were ISCED 3C programmes. This limitation to the German dual programmes is dictated by the fact that it is extraordinarily difficult to gather information relating to vocational programmes in the schools, which are administered on a decentralised basis at the federal state level. A second restriction in the comparison relates to the central topic of this discussion, namely the value of the basic qualification. The point of departure for the study is the basic vocational programme in the Netherlands, which is compared with more less related programmes in other countries. This restriction entails that we direct ourselves primarily to vocational programmes with a duration of at least two years and a maximum of three years. Although the impression exists that the basic vocational programmes in the Netherlands have a nominal duration of two years, there are also programmes that have a longer nominal duration (three years for instance). We return to this below.

Before we begin, a marginal note on level 1 programmes in the Netherlands. The assistant programmes are classified as ISCED 2 programmes with a nominal duration of one year. These programmes have no entrance requirements, which implies that no previous educational requirements are set or may be set. Pupils entering these programmes will in fact generally have completed a number of years of secondary education, even where programmes have been prematurely interrupted, and the age of entry will generally be in the 15-16 range. The English system in principle has an equivalent qualification in the form of the foundation GNVQ or the NVQ level 1. No entrance requirements are set for either of these two programmes. The ISCED mappings indicate a typical duration of one year for the foundation GNVQ and a typical starting age of 14+. No duration is indicated in the case of the NVQ level 1, though it is listed as having a typical starting age of 16. The foundation GNVQ and the NVQ level 1 are stated to be comparable in terms of level however. We are entitled to conclude from this therefore (see also section 2.5) that the NVQ level 1 programme will have a duration of one year in most cases. The reasoning referred to in section 2.5 relating to the classification of the foundation GNVQ and the NVQ level 1 as ISCED 3C (even full completion in the contention of the OECD), introduces a certain inconsistency. The rationale after all was that gaining at least five, though on average six to seven GCSEs at level A*-C reflects such a widely based basic education and at such a level that it is to be regarded as "upper secondary completion". The foundation GNVQ and NVQ level 1 however are held to be equivalent to GCSEs with scores in the D-G range. It would therefore be more reasonable to classify both of these qualifications as ISCED 2, in line with the situation in the Netherlands, despite the fact that the starting age for the NVQ level 1 course occurs at the point at which transition from lower to upper secondary educa-

tion takes place in the other countries. We disregard these programmes in the remainder of our argument only on the understanding that the foundation GNVQ and NVQ level 1 need to figure in the assessment of programmes that lie closely within the ambit of our basic vocational programme due to the necessary stacking effect (see above).

General comparison

In carrying out a comparative assessment of the Dutch basic vocational programme in relation to vocational programmes in the other four countries, our comparison focuses on the following programmes: the CAP and the BEP in France, the three year vocational programmes in the Czech Republic, the dual programmes in Germany and the intermediate GNVQ and NVQ level 2 in England. Table 3.12 gives a comparison of these programmes according to a number of their basic characteristics (differences between learning routes have not been taken into account here for the moment).

Table 3.12 **The basic vocational programmes compared with corresponding programmes (in terms of starting age, duration, cumulative duration and further study options)**

Country and prog.	Starting-age	Duration (years)	Cumulative dur. (from start of c.e.)	Further study options
Germany				
- Dual programmes	15-16	3	12-13	ISCED 4
France				
- CAP	15-16	2	11	ISCED 3B
- BEP	15-17	2	11	ISCED 3B
Netherlands				
- Basic voc. programme	16	2-3	13-14	ISCED 3C-V/3A-V
Czech Republic				
- Three-year programmes	15	3	12	ISCED 4C
England				
- GNVQ intermediate	15+	1*	11-12	ISCED 3A - V
- NVQ level 2	16	1*	11-12	ISCED 3A - V

*: The cumulative duration of the GNVQ intermediate and NVQ level 2 is two years, this is taken into account in the cumulative duration column.

The starting age does not give us much to go on in comparing the programmes. The specific age at which a start is made depends on a number factors that are not always identifiable. These starting ages are also partly based on the ISCED mappings, which lack further justification of the data. When it comes to the duration of programmes in years, this varies from 2 to 3 years. It must be pointed out that some of these programmes may be longer in Germany however (3.5 to 4 years). The differences become larger if we take into account cumulative duration since the start of compulsory education. Depending on the period of compulsory education in some German federal states (10 years instead of 9 years), cumulative duration in the case of three-year dual programmes comes out at between 12 and 13 years. France has a cumulative duration of 11 years (given a two-year CAP and BEP), under which the assumption is that candidates who decide to follow these programmes will make the transfer after completing lower general secondary education. This calculation in the Netherlands starts from the commencement of compulsory education and the assumption is that candidates will have completed four years of VMBO before transferring to basic vocational training. Given the fact that these programmes vary in duration from two to three years, this brings the cumulative duration to between 13 and 14 years (if we assume that just about everyone will have completed eight years of primary education, then the cumulative duration comes out at 14 and 15 years respectively. If we disregard group 2 of primary education however, cumulative duration falls to between 12 and 13 years). In the case of England it is the postulated equivalence of the intermediate GNVQ and the NVQ level 2 on the one hand and GCSEs on the other that is taken as the point of departure and account has been taken of the necessity of having an entry-level ISCED 3C. Taken from the start of the period of compulsory education this would come down, strictly speaking, to a cumulative duration of 11 years. It is not entirely clear however to what extent pupils are able to enter the route that leads to the intermediate GNVQ or the NVQ level 2 during Key Stage 4. It is not improbable that they will have to wait an extra year before they can actually exercise a choice in this direction. This accounts for the range of 11 to 12 years.

The perspectives for further study also differ. As already stated, pupils from the dual system in Germany have access to continuation courses which lead to the qualification of Meister once they have gained some years of work experience. These are continuation courses classified as ISCED 4. In the Czech Republic, participants in vocational programmes are still given the opportunity to pass their maturita examination by means of a follow-up course, qualifying them for entry into higher education. These follow-up courses are classified as ISCED 4C. In the Netherlands, together with the introduction of the qualification structure, various expertise centres have replaced the age old further study route from KMBO (roughly level 2) to MBO (roughly level 4) with a more restricted further study route to the secondary vocational education programme (level 3). In the case of England both qualifications offer the

option of going on to an ISCED 3A vocationally linked programme. Though a number of circumlocutions are necessary in order to arrive at it, given the assumptions that need to be maintained on a number of points, the cumulative duration comparison appears to be particularly informative. What on the face of it seemed to be comparable programmes turn out to be more diverse than was thought. When attention rests specifically on the position of the French and the English ISCED 3C short programmes (for which an exception was made in *Education at a Glance* (2001)) as compared to the Dutch basic vocational programmes (also designated ISCED 3C short), it is clear that the basic vocational programmes are certainly equivalent to the CAP and BEP programmes and the intermediate GNVQ and NVQ level 2 programmes in terms of cumulative duration.

Table 3.13 Characteristics of 20 basic vocational programmes

CREBO name	Duration in credit hours	% General	% Occupational	% School	% Practical	Optional partial qualific.
Sales assistant	3200	N.s.	N.s.	25-34	66-75	Compulsory
Secretarial assistant	3200	N.s.	N.s.	40-80	20-60	Compulsory and optional
Foundry worker	3800/4800	5	95	25-34	66-75	No
CNC Machine operative	3200/4800	6	94	25-34	66-75	No
Arch welder	3200	8	92	40	60	Yes (optional)
Scaffolder	3200	10	90	40-60	40-60	No
Bricklayer	3200	9	91	40-60	40-60	Compulsory
Plasterer	3200	12	88	20	80	Compulsory and optional
Painter	3200	12	88	20-80	20-80	Compulsory
Appliances mechanic	3200	10	90	40-80	20-60	No
ICT service assistant	4800	N.s.	N.s.	20-40	60-80	Optional
Receptionist	3200	N.s.	N.s.	N.s.	N.s.	No
Cook	3200	N.s.	N.s.	N.s.	N.s.	No
Baker	3200	N.s.	N.s.	N.s.	N.s.	No
Process operator A	3600/4000	13	87	N.s.	N.s.	No
Care assistant	3200	N.s.	N.s.	30-70	30-70	No
Welfare assistant	3200	N.s.	N.s.	40-80	20-60	No
Hairdresser	3200	6	94	40-80	20-60	No
Service mechanic installation technology	3200	10	90	20	80	No
Assistant heating mechanic	4800	11	89	20-75	25-80	No

CREBO: Central Register of Vocational Courses; N.s.: no specification.

A more specific comparison

As indicated in section 3.1, the intention was to attempt to compare a selected set of qualifications among the countries with regard to more content related characteristics. Table 3.13 first describes the Dutch basic vocational programmes involved in this comparison and their characteristics. These descriptions are based on the attainment target documents issued by the expertise centres.

Some attainment target documents have been given a form (at least in their Internet versions) such that certain data cannot be derived from them; this applies particularly to the attainment target documents for receptionist, cook and baker. In the case of some of the attainment target documents there is no question of a separate Socio Cultural (MCK) partial qualification (these attainment targets are included in other partial qualifications) or else there was a strong impression that these were not the only general, non-vocational components. The columns have been left empty in these cases (n.s. = no specification). Question marks can also be placed alongside other general/vocationally linked percentages for other qualifications; these percentages are mainly based on the relative scope of the MCK partial qualification. One could wonder whether this is an adequate indication of the proportionality that exists between general non-vocational content and pre-vocational content.
Table 3.13 shows there is a variety of basic vocational programmes with a duration longer than two years (= 3200 credit hours). For some qualifications, programme duration depends on the area of specialisation selected. The in-school and practical training percentages given for the programmes are only indicative at best. In the case of BOL for instance, the expertise centres already advise the bandwidth of a minimum of 20% and a maximum of 40% practical training. Also, where it concerns the percentage of practical training for BBL, some expertise centres hold to the legal requirement (60% or more, which indicates nothing as regards the actual percentage), while some other expertise centres opt for 80% of practical training.
Although it is to be expected in advance that any comparison between the Dutch level 2 qualifications and corresponding qualifications in the other countries will be difficult in the extreme, the degree of variability that already occurs in the Netherlands forms an additional obstacle to a more content-related comparison. Table 3.14 gives a survey of the extent to which these qualifications crop up or fail to crop up in the other countries or put in an appearance in a less related guise.

Table 3.14 **Presence and compatibility of level 2 qualifications in four countries**

Name of qualification	Germany	France	Czech R.	England
Sales assistant	++	++	++	++
Secretarial assistant	+	+	++	++
Foundry worker	+	++	++	-
CNC Machine operative	+	++	++	+
Arc welder	+	+	-	-
Scaffolder	++	-	-	-
Bricklayer	++	-	++	++
Plasterer	++	-	-	++
Painter	++	++	++	+
Appliances mechanic	-	-	++	-
ICT services assistant	-	-	-	+
Receptionist	+	++	-	-
Cook	+	++	++	+
Baker	+	++	++	++
Process operator A	-	-	-	+
Care assistant	+	-	++	+
Welfare assistant	-	-	-	-
Hairdresser	+	++	++	+
Installation technology maintenance mechanic	-	-	++	+
Assistant heating mechanic	-	-	-	+

++ = reasonable correspondence; + = more or less related programme; - = programme unrelated.

This global comparison provides only an initial picture. Comparison in greater depth is made difficult by the way various attainment documents have been drafted. In the case of Germany, the Ausbildungsordnungen have remained fairly global and generally define relatively wider ranges of occupations, the various specialisms being included in these wider categories (machine operatives for instance figure as part of the wider occupational category of Industriemechaniker). With some of these Ausbildungsordnungen, moreover, the documents date from the nineteen eighties (for the occupation of baker for instance), which makes the comparison itself somewhat of a dubious undertaking. Comparison with French attainment documents is difficult due to a specific method of classification used in France that results in programme nomenclature categories being fairly abstract sometimes, making the search for corresponding programmes not an easy task. For the Czech Republic we have adopted the information supplied by the Czech experts. All we could

obtain from England was a printout of the names of qualifications included in the NQF. We were unable to get hold of any attainment documents or qualification descriptions.

Where qualifications showing reasonable correspondence were found in the Czech Republic, these were three-year programmes, all of which were provided by the secondary vocational education institutes. Where non-corresponding programmes were found these were partly programmes given as "continuing training" (for plasterers for instance) or they related to qualifications for which no programmes existed. In Germany programmes that showed a reasonable correspondence were almost all three-year programmes, with the exception of the sales assistant programme. As in the Netherlands, this was a two-year programme. The more or less related programmes had a nomenclature that coincided with Dutch qualifications, though these programmes had a specific position within the dual system. They were mainly programmes that qualified as non-recognised occupational training courses or as specific learning routes for "the handicapped", which, though existing outside of the regulatory system, nevertheless provided training for a recognised occupation. Where non-corresponding qualifications were found, some of these were qualifications along the same line, but were more comparable to professional or middle management programmes (one exception to this was the process operator programme, known in Germany only as Fortbildungsberuf). To the extent that French programmes are comparable to those of the Dutch basic vocational programmes, the general rule that emerged was that wherever a reasonable correspondence exists, it relates to comparable CAP or BEP programmes, in the sense that these programmes cover more or less the same occupational areas (hairdresser, baker, painter for instance). In the case of more or less related programmes these are programmes that cover rather wider areas (secretarial assistant for instance) or the so-called Mention Complémentaires, which cover a corresponding programme area.

While it is therefore difficult to compare programmes as regards curriculum content (share taken by general vocationally linked subjects, share taken by theory and practice), supplementary to (cumulative) programme duration, a comparison can be made as regards programme "intensity". As shown in table 3.13, the basic vocational programme (at least for the twenty programmes selected) has a bandwidth of a minimum of 3200 credit hours and a maximum of 4800 credit hours. If we compare that with programmes in the other countries we obtain the following picture (see also table 3.15). Regardless of the number of weeks taken up by the work experience stage, a two-year schools based CAP programme in France takes 69 weeks. The weeks spent in school have an average of 33 lesson hours. Assuming that a work experience week is 40 hours (more likely to be 36 hours in reality) and that students may also be taking optional choice subjects (sport, creative subjects), the duration of the programme in hours works out at significantly lower than 3200. The identical

calculation can be made for the two-year BEP school-based programme within the given bandwidth of 33 to 36 lesson hours per week (40 weeks per year).

Table 3.15 **Comparison of programme intensity for two and three-year vocational programmes**

Country and programme	Programme intensity in hours
Germany	
- Dual vocational programme (duration three years))	Approx 4800 hours
France	
- Two-year schools based CAP programme	2589-2601
- Two-year schools based BEP program	2310-2520
Netherlands	
- Basic vocational programme (BOL/BBL in credit hours	3200-4800
Czech Republic	
- Three-year vocational programmes	3960
England	
- GNVQ intermediate	Approx 2000 hours
- NVQ level 2	Approx 2000 hours

The same assumption of 40 hours per week and 40 weeks per year is also made for the German dual programmes. This makes the German dual programmes correspond to the three-year basic vocational programme in the Netherlands. The three-year vocational programmes in the Czech Republic are all based on school years of 40 weeks. If 33 lesson hours a week are taken as the average, this results in a programme intensity of 3960 hours. For England finally, the expert's estimate that pupils following a GNVQ spend an average of 25 hours a week in school is used as the starting point. Following then the line of reasoning used earlier regarding the time taken to gain a GNVQ intermediate and an NVQ level 2 respectively (bearing in mind the entrance level needed and assuming 40 school weeks per year), we come out at a programme intensity of approximately 2000 hours. While here again the necessary caution needs to be used in the interpretation of data, even on programme intensity comparison grounds it can be concluded that the Dutch basic vocational programme is slightly more related to the German dual programme and the Czech Republic's three-year vocational programmes than it is to either the CAP or BEP programmes in France or the English GNVQ intermediate or

NVQ level 2. The actual programme duration for the basic vocational programme is the decisive factor here. The two-year basic vocational programmes occupy a middle position. The three-year basic vocational programmes appear to correspond to the German dual programme (3 to 3.5 years).

3.4 Summary and conclusions

This component of the report on the value of the Dutch basic qualification reports on the outcomes of an international programme comparison. In this comparison the attempt has been made to compare upper secondary education in Germany, France, the Netherlands, the Czech Republic and England and to make a more programme content related comparison, focusing on the ISCED 3C (short) programmes.
As was anticipated from the start, making the programme content comparison was found to be no easy task. The ways by which vocational programmes are defined and classified in the different countries are too diverse for that. This of course does not detract from the fact that a comparison of the more structural aspects of lower and upper secondary education in itself offers interesting points of contact for discussion regarding the value of the Dutch basic qualification as compared to more or less corresponding qualifications in the four countries involved in this study. The reasoning behind the distinction made by the OECD between ISCED 3C long and ISCED 3C short programmes is that programmes shorter than three-years give participants insufficient of the stock in trade to allow them to participate (over an extended period) in working life. Completion of an ISCED 3C short programme is accordingly not regarded as "full secondary completion". In the case of the Netherlands this argument would effectively entail the disqualification of basic vocational training, which is regarded as the equivalent to the basic qualification. At least that would be the case, if for the sake of convenience it were to be assumed that all basic vocational programmes have a nominal duration of two years. As it turns out however, this is not the case.

The crux of the question concerns the extent to which other countries are confronted with similar issues. There are no instances of ISCED 3C programmes in Germany. All dual programmes and school-based programmes, regardless of their duration, are classified as ISCED 3B programmes. This accordingly includes school-based programmes with a duration of only one year. In the Czech Republic two-year vocational programmes are the exception rather than the rule and are not strictly speaking regarded as "upper secondary programmes", despite the fact that they are provided by secondary schools specialising in vocational education. This means that all vocationally qualifying programmes in the ISCED 3C category in that country have a three-year duration.

In the same way as the Netherlands, England and France have several programmes that strictly speaking fall into the ISCED 3C short category. In the case of England they are the GCSE, GNVQ foundation, GNVQ intermediate and NVQ 1 and 2 programmes. In the case of France they are the CAP and the BEP programmes. In contrast to the case of the Dutch basic vocational programme however, the completion of any one of these programmes is in fact regarded as "full secondary completion". Where England is concerned, the reasoning behind this exception is that gaining at least five 5 A*-C grades in the GCSEs is equivalent to "full upper secondary completion". Given that the vocationally linked (GNVQ) and prevocational (NVQ) programmes are regarded as equivalents to the generally based programmes, then qualitatively speaking the same must apply to the GNVQ intermediate and the NVQ level 2. The reasoning deployed in France is less transparent. The classification system used in France makes a clear distinction between the level represented by the CAP or the BEP on the one hand and the level represented by the BacPro or the technical or general baccalaureate on the other. This notwithstanding, it is stated that both those who have successfully completed secondary education (i.e. have gained at least a BacPro or a baccalaureate) *and* those who have achieved the CHP or BEP level, are regarded as having attained "full upper secondary completion". Considerations that have to do with aspects such as cumulative schooling duration on transfer from primary education to lower secondary education or overall cumulative duration following completion of either a two-year or three-year ISCED 3C programme are not taken into account at all. That also applies to the programme intensity aspect.

The central question, even in this part of the study, concerned the (relative) value of the Dutch basic qualification. The following conclusions can be drawn based on the comparisons made between the countries. First of all, Dutch pupils who leave VMBO on transition from lower to upper secondary education in order to enter a basic vocational programme have the longest period of cumulative schooling behind them of all pupils in the five countries. This is the case at least if commencement of compulsory education is taken as the point of departure. If the start of the ISCED 1 programme is taken as the basis, the Netherlands then takes up joint second position with Germany when cumulative school duration is concerned (10.5 years) after England (11 years). The duration of lower secondary education in the Netherlands is consequently not out of step with that of the other four countries, while the curriculum for lower secondary education in the Netherlands is relatively broad in comparison. Secondly, it is a fact that part of the basic vocational programmes are two-year programmes, but there are also basic vocational programmes with a duration of 2.5 or even 3 years. These variations do not seem to have been taken into account however in data such as that presented in *Education at a Glance*. Despite this, even when it comes to two-year basic vocational courses, the fact is that cumulative duration on completion of the

programme is proportionately the longest of all the five countries involved in the study. Here again, the start of compulsory education serves as the starting point. If the age of six is taken as the starting point for the calculation, then programme duration for a two-year basic vocational programme coincides with that of most of the dual programmes in Germany and the three-year vocational programmes in the Czech Republic, namely twelve years.

More content-related comparison of a specific set of ISCED 3C (short) programmes based on a selection of twenty basic vocational courses proved to be extremely difficult. The intention behind this kind of comparison was to allow hypothetical statements to be made regarding differences and correspondences in content and the "difficulty" of programmes. It was ultimately impossible to make this kind of comparison because of differences in the way qualifications and underlying "attainment documents" are structured and phrased in the countries concerned. What was more, it appeared that for part of the basic educational qualifications selected there were no corresponding qualifications in the other countries. It did prove possible however to make a comparison of the training intensity of the basic vocational programmes and their "related" programmes in other countries. It emerged from this comparison that training intensity of programmes (expressed as the total number of (nominal) hours needed to gain the qualification) varied considerably. The training intensity of German dual programmes, the Czech Republic three-year vocational programme and Dutch three-year basic vocational programme came out highest, and that of the English (vocationally linked) programmes (GNVQ intermediate and NVQ level 2) lowest. The French two-year school-based CAP and BEP programmes took up the middle position on training intensity, but were still less "difficult" than the two-year basic vocational programmes.

If in a comparison of the Dutch basic qualification (level 2 of the qualifications structure) with corresponding programmes in Germany, France, the Czech Republic and England, aspects are included such as cumulative duration on entry into lower secondary education, on transition to upper secondary education and on completion of the basic vocational programme (or a related programme), the breadth of the curriculum in lower secondary education and the training intensity of the ISCED 3C programmes compared, the conclusion is likely to be that the basic qualification has a clear and distinct value from the international comparative perspective. Completion of the basic vocational programme leads to a relatively high cumulative schooling duration and is preceded by a relatively broadly based first phase. Similarly, the training intensity of the basic vocational programme compares reasonably or well with three-year ISCED 3C (or 3B) programmes in other countries and is (significantly) higher than that of the two-year ISCED 3C programmes in other countries.

More generally, the exercise undertaken here allows us to see that a more thoroughgoing analysis of educational programmes that are classified within the same category in different countries brings to light essential differences. This is partly due to (more or less politically inspired) differences in interpretation of classification rules. It probably partly also has to do with historical developments in educational systems. It enables us to see for instance why against the background of the former distinction between nursery school and primary school in the Netherlands, the second year of the current primary school, which comes under the compulsory education provisions, is still classified as ISCED 0. From an international comparative perspective however this classification appears to have little logic to it, given that in other countries the starting age for primary school coincides with the start of the individual child's term of compulsory education (cf. England where compulsory education also commences at the age of five) and the first year of primary school is classified as ISCED 1. Similar reflections can be made regarding the distinction between ISCED 2 and ISCED 3 programmes (for instance the Dutch assistant programmes as compared to the English GCSEs (D-G grade), NVQ 1 and GNVQ foundation) and the allocation of programmes to ISCED categories 3A, 3B and 3C. The current (use of) ISCED as both a classification system and system of comparison exposes too much the (intrinsic and structural) differences between programmes that are accommodated within the same category. Although the real question revolves around the extent to which it will prove possible to optimise classification of programmes further, given the administrative burden that this will entail for countries in terms of provision of information, there seems, at the very least, to be room for improvement.

4 The basic qualification and skills measurement

4.1 Introduction

The component of the project concerning the relationship between the basic qualification and skills measurement was undertaken by Willem Houtkoop of MGK.
Generally speaking there is little data available on the performance of current or past participants in vocational education programmes in tests that measure skills. Large-scale international assessment projects such as TIMSS, IEA and PISA all focus on younger participants, often those in lower secondary education. Exceptions to this are the TIMSS study *The Final Year* which focuses on participants at the end of secondary education (including vocational education) and the IALS research project, which covers the whole of the 16-65 age group. It seems urgently necessary for skills measurement of this kind to be extended to cover those in the older age groups (preferably on a longitudinal basis) and orientated particularly towards critical phases of life, such as the transition to the labour market, the ups and downs of working careers and (later) adulthood.

4.2 The TIMSS data

The "Third International Mathematics and Science Study" (TIMSS) is the largest and most ambitious of a series of international comparative studies carried out under the direction of the International Association for the Evaluation of Educational Achievement (IEA). TIMSS 1995 focused on three groups: participants in primary education, participants in lower secondary education and participants at the end of compulsory schooling. This last group is the most relevant for our purposes.

What participants were tested?

In the TIMSS *Mathematics and Science Literacy in the Final Year of Secondary School* study (1998) participants at the end of secondary education were tested with regard to their skills in mathematics and science (note: tests in advanced mathematics and physics were carried out in some countries, but the Netherlands was not involved in this part of the study). Participating in these tests in the Netherlands were pupils from the final VWO, HAVO and MBO/KMBO classes. Participants in modern apprenticeship programmes were excluded (TIMSS, 1998, Appendix A, page A-18).
The United Kingdom did not take part in this component of the TIMSS. For purposes of comparison we have substituted Sweden for the United Kingdom

in this section of our study. The TIMSS Coverage Index (TCI) indicates the percentage of the cohort (the so-called school leaving age cohort) tested. For the Netherlands this percentage was 78%, for Germany and Sweden 75.3% and 70.6% respectively and for the Czech Republic and France 78% and 84% (TIMSS, 1998, p. 18).

What measurements were carried out?

The mathematics and science literacy test was designed to measure the knowledge and skills of all students in the fields of mathematics and science during the final year of school (independently of programmes followed) before they enter the labour market or make the transition to post secondary education. Participants can include those who have specialised in mathematics and science, as well as those whose strengths are in an entirely different direction, depending on the programmes in the various national educational systems.
The mathematics and science literacy study was designed to provide information on the extent to which the overall population of school-leavers in the different countries is equipped to make use of knowledge and skills in the field of mathematics and science to cope with the various demands imposed on them by life after school. The mathematics items relate to number theory, including fractions, percentages and proportion. Knowledge of algebra, measurement and approximation is included, as is data presentation and analysis. The importance of reasoning and practical usefulness is emphasised in a number of the items. The general criterion used for the choice of items was that the questions and problems posed had to be those students were likely to encounter in day-to-day life. The science items in the TIMSS literacy test were grouped around three areas; earth science, life science and physical science. Again, students were asked to argue their case and come up with practical applications. The emphasis was on the question of how well participants were able to use their knowledge in solving actual day-to-day problems that involve a science component.
Mathematical skills and scientific skills were chartered on two separate scales, each with an average of 500 and a standard deviation of 100. A combined scale showed the average of the mathematical and scientific skills results.

4.3 Results

In general, the Netherlands and Sweden achieved the highest scores on both the mathematics and science tests. Germany and France scored somewhere around the average for all countries involved in the study.
Since the tests were taken at the end of the final year of secondary education, the distinction could be made between general and “academic” programmes, technical programmes and vocationally linked programmes. In cases where there is a distinction between technical and vocationally linked programmes, technical programmes mostly referred to a higher stream in vocational educa-

tion. The Netherlands does not make this distinction. Results for the five countries are given in table 4.1.

Table 4.1 **Distribution according to type of programme and average scores in the TIMSS mathematics and science literacy test per programme**

	Type of programme			
	Academic	**Technical**	**Vocational**	**Total**
Percentage in programmes				
Netherlands	43%	-	57%	100%
Germany	26%	11%	63%	100%
Sweden	66%	-	34%	100%
France	54%	34%	12%	100%
Czech Republic	14%	29%	57%	100%
Average scores				
Netherlands	612 (9.9)	-	519 (5.3)	559 (4.9)
Germany	567 (4.1)	502 (20.9)	466 (7.2)	496 (5.4)
Sweden	587 (4.8)	-	500 (4.6)	555 (4.3)
France	534 (6.7)	486 (5.0)	435 (6.7)	505 (4.9)
Czech Republic	582 (7.2)	523 (10.8)	427 (5.4)	476 (10.5)

() Standard errors between brackets.
Type of programme based on participant statements regarding programmes in the Netherlands, Czech Republic, France and Sweden and based on administrative data in Germany.
Source: TIMSS, 1998, p. 83 and p. 32.

Overall, participants in general programmes obtained higher scores than participants in vocationally linked programmes and these differences are highly significant. Clear also is that the so-called technical programmes account for a distinctly elite stream within vocational education, with scores lying mostly between those for general education and vocationally linked education. The Netherlands was the highest scorer in both general and vocationally linked education, with Sweden in the second place. Since Sweden had more participants in general education, the overall scores for the Netherlands and Sweden are almost identical. The average scores of German vocational education participants are relatively low. This is a cause of concern since relatively large numbers of participants follow vocationally linked programmes. The average French scores, for general courses certainly, but even more so for vocationally linked courses, seem to be alarmingly low.

The Netherlands performs well on TIMSS tests in general, even in comparison with other countries. This applies to secondary education in general, though it applies particularly to secondary vocational education.

4.4 IALS; the literacy of the labour force

4.4.1 The background to IALS

An alternative indicator for measuring the performance of educational systems or educational programmes was developed in the context of the International Adult Literary Survey or IALS. It relates to skills in the field of literacy and numeracy, not the only important skills area, but a very essential one. The survey focuses on adults, meaning that measured skills can be fully attributed to the individual's educational background, though it is precisely this educational background that continues to be the most important predictor of literacy and numeracy scores, even during the later phases of life.

The aim of the IALS study is to establish the extent to which adults are able to use and understand the written information they encounter in day-to-day life. These skills have been given the term "functional literacy". The full definition is as follows: an ability to use printed and written information, in order to function in society, in order to achieve personal goals and in order to develop or further develop individual knowledge and prospects.

The IALS study is carried out in twenty-one countries. The Netherlands was one of the first countries to participate. The growing database makes it possible to carry out national and international comparisons. The Adult Literacy and Life Skills project (ALL) has been initiated as a possible follow-up which will develop test instruments for new skill areas (numeracy, problem-solving). The Netherlands is involved in this project.

Functional literacy in terms of the IALS study is described as the ability to understand and use the written information individuals typically encounter in day-to-day life (at home, at work and in the wider social context) in an adequate manner. Three areas of functional literacy are identified.

- *Prose literacy;* the ability to read newspaper and magazine articles and other narratives and derive accurate information from them.
- *Documentary literacy;* the ability to understand and use information from documents such as forms, manuals, instructions, flyers, cards, tables and graphics.

- *Quantitative literacy;* the ability to carry out simple mathematical operations such as filling in a cheque, price calculations and comparisons, calculating the interest rate on a loan, etc.

The skills are measured by means of a test taken by a representative sample group of the Dutch labour force (aged 16-65). Approximately 3000 people took part in the study in the Netherlands in 1995.
Scales are constructed for the three areas of literacy based on the test results. The scores range from 0 to 500. The scores are subdivided into five levels. These levels represent sequential levels of complexity in information processing skills and strategies.

Adults who score at level 1 cannot be called illiterate, though they can be expected to experience significant problems in understanding and fulfilling the literacy and numeracy tasks that confront them in day-to-day life. Even a score at level 2 can be problematical, certainly in the context of work, where there is increasing demand for information processing skills and the ability to adapt to rapidly changing (information) environments. People who score at level 3 and higher appear to be those who are adequately prepared for the literacy and numeracy tasks they will encounter in a general sense, both now and in the future. Levels 4 and 5 have been combined for the purpose of the analysis, since the number of those scoring at level 5 in most of the countries is negligible.

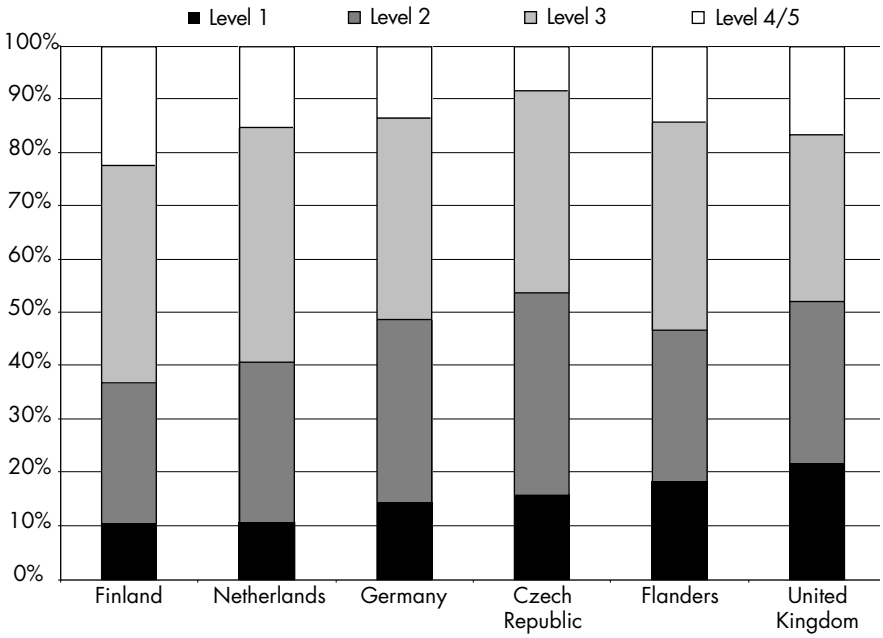
In the IALS study, detailed questions are set regarding the educational background of participants in the various countries. Only some of these questions are set or are able to be set in all countries however. Problems of equivalence are often encountered in translating back to the ISCED categories. One of the results of this is that refinements within the ISCED categories (the ISCED 3C short for example) are hardly possible. Similarly it is not always clear what is being attributed to general education on the one hand and vocational education on the other. Bearing these shortcomings in mind however, it was still possible to extract good results from the analyses.
The reverse of this is that it did become clear that external benchmarks such as the IALS scores lend themselves extremely well to being used to test the reality value of ISCED categories in the various countries.

4.4.2 International literacy comparisons

The comparison countries were the Netherlands, Germany, the Czech Republic, the United Kingdom, Belgium and Finland. France withdrew from the IALS project halfway through. To compensate for this, our neighbouring country Belgium (or more precisely Flanders) and that European country so widely celebrated in discussions of the knowledge economy, Finland, were co-opted

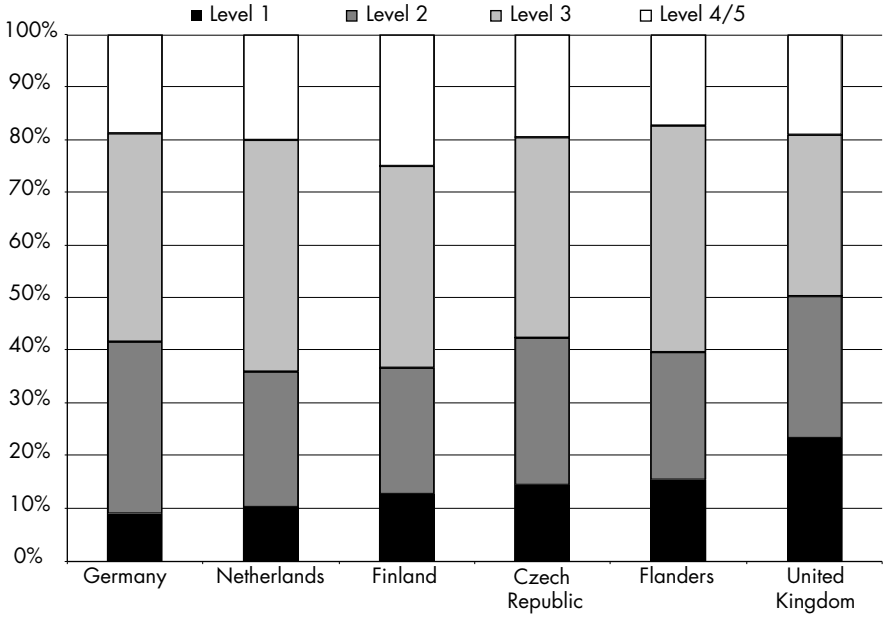
into the study. Figures 4.1, 4.2 and 4.3 show the distribution of the adult population over the different levels of prose, documentary and quantitative literacy.

Figure 4.1 **Prose literacy in six countries, ages 16-65, weighted**



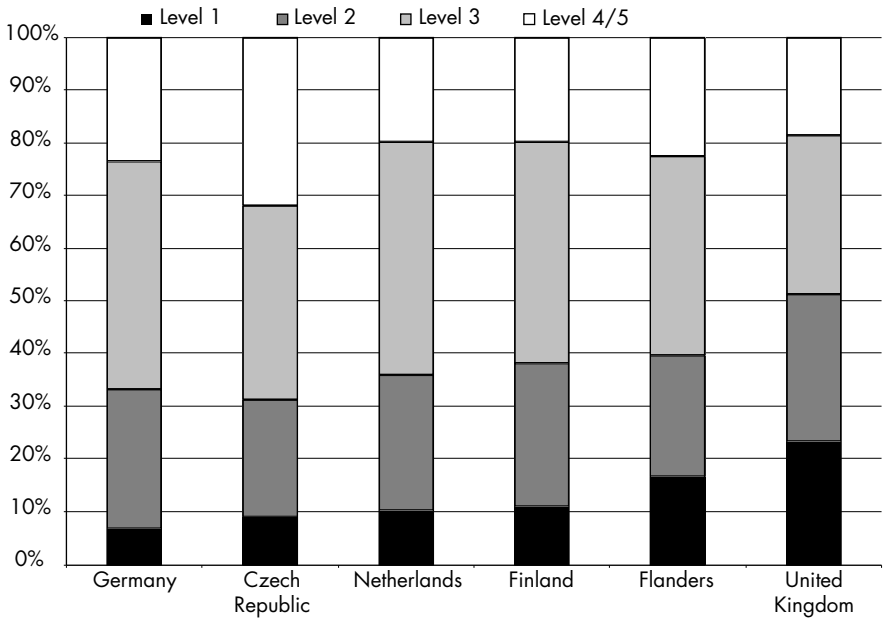
If we look at the scale for prose literacy, we see that based on the average scores (not shown further here) Finland takes first place, with the Netherlands in second place and the Czech Republic and the United Kingdom bringing up the rear. Looking at the distribution over the different levels, Finland has the least number at levels 1 and 2 and the most at level 4/5. At 22.4%, more than a fifth of the labour force scores at this highest level. The comparable percentage in the Netherlands is 15%. The Netherlands and Finland appear to be very similar at level 1, where in both cases "only" around 10.5% score at his low level. The Netherlands shows particular strength at the middle level, with 44.1%, it has relatively the most participants who score at level 3. The United Kingdom shows a mixed picture, with a relatively very large number of people at level 1 (21.7%) but it takes second place for those who score at level 4/5 (16.6%). We therefore see here a much sharper division between highly literate and poorly literate than in the Netherlands for instance, where we find only 10.5% at level 1. Germany distinguishes itself by having a relatively low number of people who score at level 4/5 (13.4%).

Figure 4.2 **Documentary literacy in six countries, ages 16-65, weighted**



The documentary literacy scale provides a similar picture. In view of the averages, Finland and the Netherlands take up joint first place, followed by Germany. In this case it is Flanders and the United Kingdom who bring up the rear. When we look at distribution over the levels, it is striking again that Finland has a relatively large number of people who score at level 4/5: 25.1%, as compared to 20.0% in the Netherlands. Striking too is the fact that Germany has relatively few people who score at level 4/5 on this scale (18.9%). The Netherlands once more shows strength at the middle level. At 44.2%, the Netherlands has relatively most participants who score at level 3. At the bottom end, level 1, there is not much difference between the best performing countries, with 9% for Germany, 10.1% for the Netherlands and 12.6% for Finland. The United Kingdom again has a large number of people at level 1 (23.2%), but remains reasonably in the zone at level 4/5 with 19.2%.

Figure 4.3 **Quantitative literacy in six countries, ages 16-65, weighted**



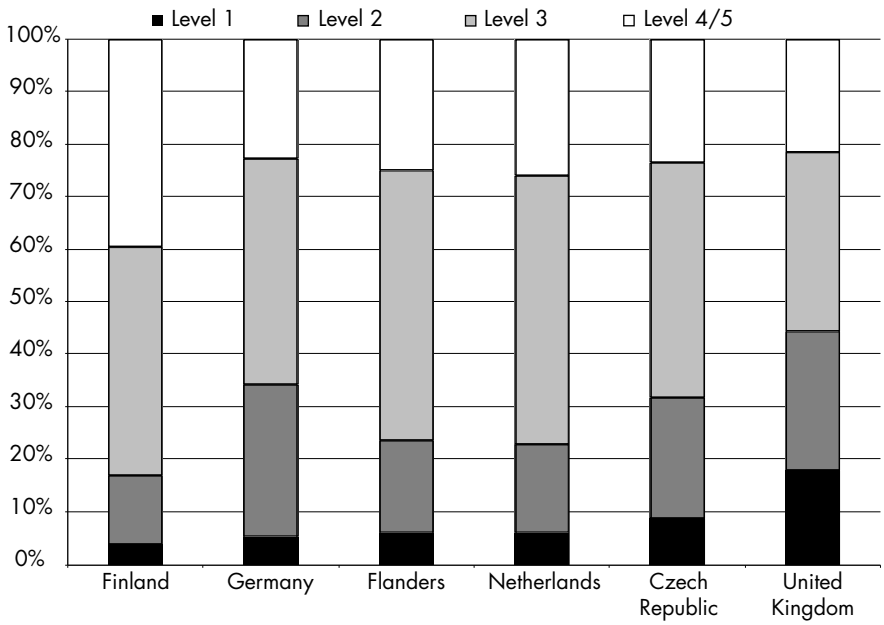
The quantitative literacy scale shows a slightly different picture. Taking the averages into account, the Czech Republic comes first, followed by Germany. The Netherlands and Finland come in a close third and fourth, and the United Kingdom once more brings up the rear. When we look at distribution over the levels, the first striking feature we notice is the large number of people in the Czech Republic at level 4/5 (31.9%). Germany follows in second place with 23.5%. The Netherlands, with 19.9%, has relatively few people at the top level on the quantitative scale. The Netherlands is again the strongest in the mid scale, with 44.3% at level 3. At the bottom end there is not much difference between Germany, the Czech Republic, the Netherlands and Finland, with the share of the labour force at level 1 varying between these countries from 6.7% (Germany) to 10.3% (Finland). Striking again is the large proportion of English participants at level 1 (23.3%) and level 2 (27.9%), figures that in this case are not compensated by relatively high percentage scores at levels 3 and 4/5. The United Kingdom comes in last for both these levels. To illustrate the differences: against a score of 31.9% at level 4/5 by participants in the Czech Republic, England had a score of 18.5%.

In summary it is striking that a relatively large share of the Finnish labour force scores at the highest level of the prose and documentary literacy scales. The same applies to the Czechs for the quantitative scale. The Netherlands is strong at mid level 3 and has an average position at the highest level of the

scale. The Netherlands has relatively few participants at level 1, a position shared with Finland and Germany and to a slightly less degree the Czech Republic. The United Kingdom finally has a relatively large number of participants at level 1 on each of the scales, amounting to more than a fifth of the labour force.

Correlation between scales is high. This being so, we concentrate further on the documentary literacy scale.
The background to this study is the value of the basic qualification. As earlier indicated, that particular programme level cannot be distinguished as such within the IALS dataset. It remains possible to take a more general look at the "yields" from ISCED levels 2 and 3 (corresponding to MAVO/VBO and HAVO/VWO/MBO respectively) in the various countries. An attempt will be made in a following section to draw a further distinction between general and vocationally linked education. We confine ourselves here to the younger age group of sixteen to twenty-five year-olds. The older the age group, the more factors there are to influence the formation of literacy levels. Adopting the younger age groups allows the "pure" influence of the educational level achieved to be established better. Figures 4.4, 4.5 and 4.6 relate successively to documentary literacy among 16-25-year-olds at ISCED level 2 and ISCED level 3.

Figure 4.4 **Documentary literacy in six countries, ages 16-25, weighted**

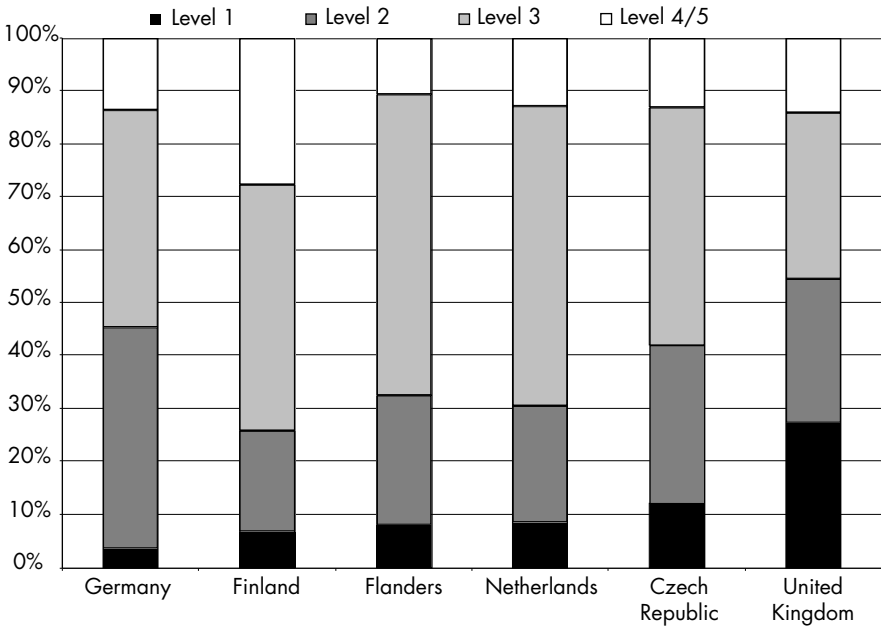


When we look at this younger age group, the generation of the future, the first thing that strikes us is the excellent performance of Finland: 39.5% of the population at level 4/5 and 83.2% of the population at levels 3 and 4/5 combined. This is in sharp contrast to United Kingdom where only 55.6% of 16 to 25-year-olds score at levels 3 and 4/5. Fairly dramatic is the fact that 17.8% of young people in the United Kingdom are unable to take things further than level 1. Like Finland, the Netherlands scores well for this group, with 77.1% at level 3 and level 4/5 combined. The major difference with Finland is the large share of Finnish young people at level 4/5. Apart from the United Kingdom, we find on average relatively few among this group of young people at level 1 (between 4 and 8%), but it is nevertheless alarming that there should be any group at all at level 1 among this set of young people in their final year at school/recent school-leavers. From further analysis of the Dutch figures it emerges that this level 1 includes a relatively large group of immigrants (born elsewhere, parents born elsewhere and/or Dutch not used as a language in the home).
In comparison to Germany, we find a relatively large group at level 3 in the Netherlands, while Germany has a relatively large group at level 2.

The results found here may well be the consequence of differences in the level of achieved educational attainment between the countries participating in the study. There is of course more likelihood of higher scores for the skills being investigated here the more people participate in higher education. The following figures accordingly show the level of literacy for 16-25-year-olds with the highest level of schooling at ISCED level 2 and ISCED level 3 respectively. For the sake of clarity: in Dutch terms the ISCED 2 level refers to programmes at the MAVO, LBO/VBO or VMBO level, the ISCED 3 level refers to programmes at the HAVO, VWO or MBO level.

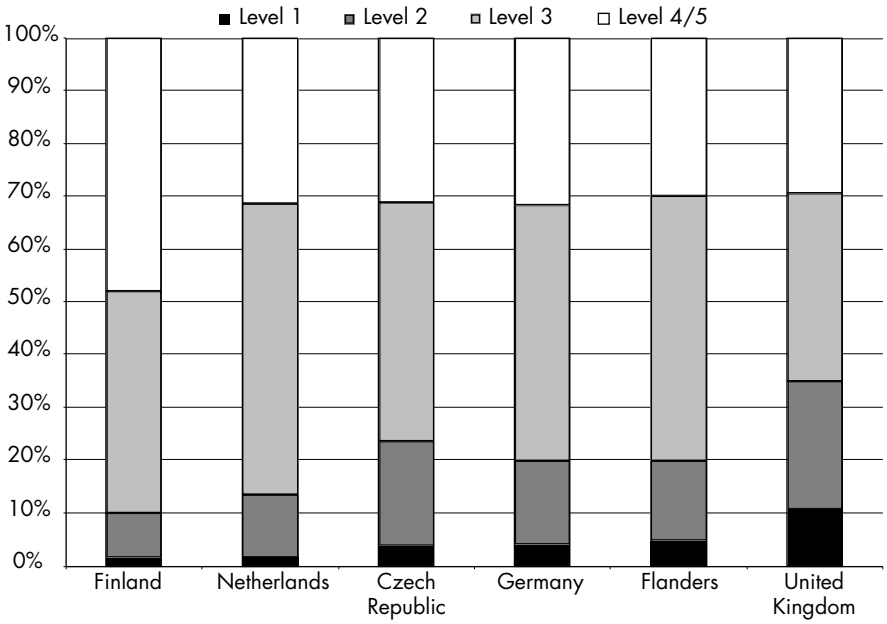
Figures 4.5 and 4.6 take a look at 16-25-year-olds in Finland, the Netherlands, the Czech Republic, Flanders, Germany and the United Kingdom who (in ISCED terms) have the same formal level of education. Despite this, we see large differences. There would appear to be differences in the productivity of the various national educational systems or in certain components of these systems.

Figure 4.5 **Documentary literacy in six countries, ISCED 2, ages 16-25, weighted**



We are struck by significant differences at the ISCED 2 level. To compare the extremes again; in Finland 74% of young people who have completed an ISCED 2 programme score at level 3 or level 4/5, in the United Kingdom this percentage is 46%. At this relatively low programme level, 27.7% of Finnish young people already score at level 4/5, while in the United Kingdom almost an identical percentage (27.2%) score at level 1. Here as before, the Netherlands does relatively well; Finland tops the list to a great extent, followed by a second group consisting of the Netherlands and Flanders, in turn followed by a third group consisting of Germany and the Czech Republic, with the United Kingdom bringing up the rear. The relatively low position of Germany is fairly astonishing. While the Netherlands and Flanders (at this programme level) both have a relatively large number of young people at level 3, in Germany we see a relatively large number at level 2.

Figure 4.6 **Documentary literacy in six countries, ISCED 3, ages 16-25, weighted**



It is clear that the full range of skills is higher at ISCED level 3. Clear also is that significant differences occur between the countries at this level. Finland once more scores very well. More than 90% of individuals in the labour force who have completed a programme at ISCED 3 level score at level 3 or level 4/5 on the documentary literacy scale, nearly 50% of these scoring at level 4/5. The Netherlands also does well, with around 87% at levels 3 and 4/5, though with only 31.4% at level 4/5, clearly less well than Finland. In the Netherlands however ISCED 3 is strongly associated with literacy level 3, a feature also to be seen in Flanders, Germany and the Czech Republic. In the case of the United Kingdom, even for those with an ISCED 3 level of education, a relatively large number remain behind at level 1 (10.6%) and level 2 (24.3%). The relative share in the total taken by those at level 1 is much smaller in the other countries, particularly in Finland and the Netherlands, at around 1.5%.

In general it appears that formally equivalent levels of education in the different countries can nonetheless result in differentiated levels of literacy. To put this slightly differently, equivalent educational levels in the different countries are the exponents of differentiated levels of productivity, meaning that it cannot be ruled out that these differences exist partly as a result of shortcomings in the ISCED classification itself.

Finland once again does very well in this comparison of educational levels, the high percentages of scores at level 4/5 being particularly striking (28% at ISCED 2 and 50% at ISCED 3). The Netherlands comes in a good second, mainly with a strong representation at level 3 (57% at ISCED 2 and 55% at ISCED 3). Germany's relatively low position is fairly surprising, though the United Kingdom again is the straggler, with 27% at level 1 for ISCED 2 background students and 11% at level 1 for ISCED 3 background students.

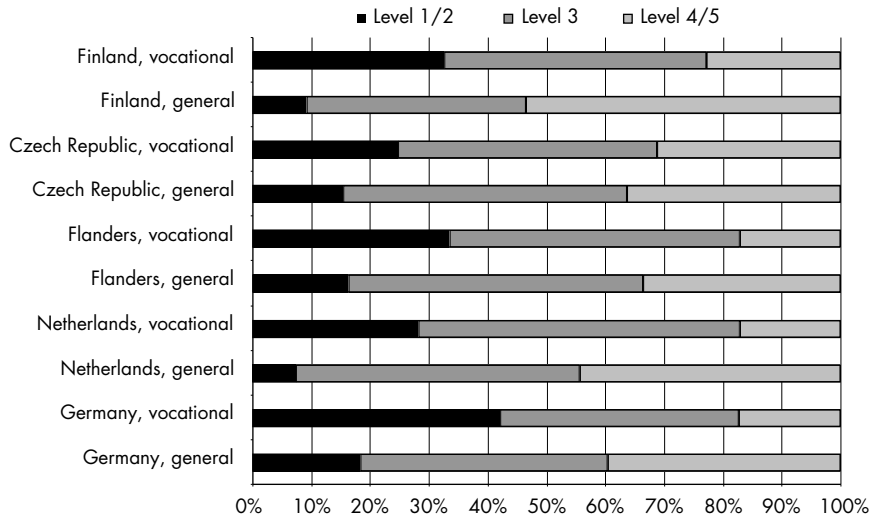
Another study based on the IALS data interestingly enough showed that Dutch entrants with a higher education background (ISCED 6/7) generally performed less well than entrants from other countries with an equivalent background (Houtkoop, 1999). Though no cross-references are available, we can report for instance that of Finns with a higher education background, more than 50% score at level 4/5, as compared to 35% of equivalent level Dutch. It would appear that in this respect Dutch higher education is less productive than Dutch secondary education.

4.4.3 Vocational education

As illustrated in the previous paragraphs, it is possible to make a comparison between countries on the basis of overall levels of educational attainment, such as ISCED 2 and ISCED 3. Drawing distinctions between general and vocationally linked programmes on the other hand, particularly at the secondary level, has proved to be much more difficult. IALS categories frequently lack the refinement that would allow these distinctions. Students at ISCED 3 level were asked whether their course was a general (academic or college preparatory) programme or a vocationally linked programme in business (commercial or trade/vocational). No further subdivision within the ISCED 3 level was made. Additionally, it was not always clear what programmes were classified at this level. An overall classification into general and vocationally linked programmes could be made for the Czech Republic, the Netherlands, Finland, Flanders and Germany. This classification proved impossible to make for the United Kingdom.

Figures 4.7 and 4.8 show scores on the documentary literacy scale for the whole of the labour force, including in figure 4.7 scores attained by entrants with a background in general education and in vocational education, and in figure 4.8 scores attained by entrants with a background in vocational education only.

Figure 4.7 **Documentary literacy in five countries, general and vocationally linked programmes, levels 1 and 2 combined, ages 16-65, weighted**



Impressive, and at the same time fairly shocking, is the very large difference in literacy between general education background adults and vocational education background adults. The share taken by vocational education background entrants at levels 1 and 2 is often two to three times as large as the share taken by general education background entrants in these categories. To illustrate, in Finland the proportion of general education background entrants who score at level 1 or 2 is 9.2%, while the corresponding vocational education background entrant score is 32.6%. The figures for the Netherlands point in the same direction, with 7.2% and 28.2% respectively. Only in the Czech Republic is the difference less extreme; 15.3% of general education background entrants score at levels 1 or 2, while the corresponding vocational education background entrant score is 24.7%.

Figure 4.8 **Documentary literacy in vocationally linked education in five countries, levels 1 and 2 combined, ages 16-65, weighted**

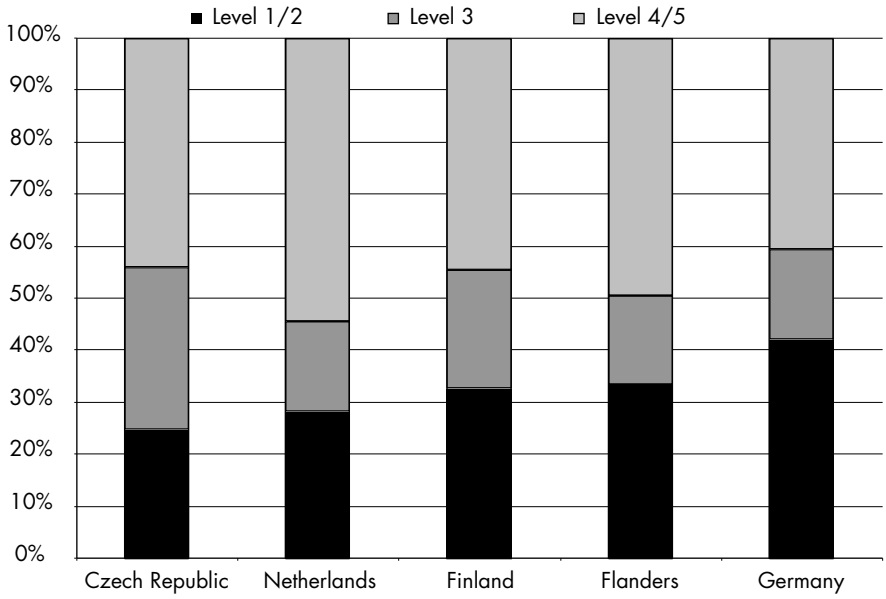
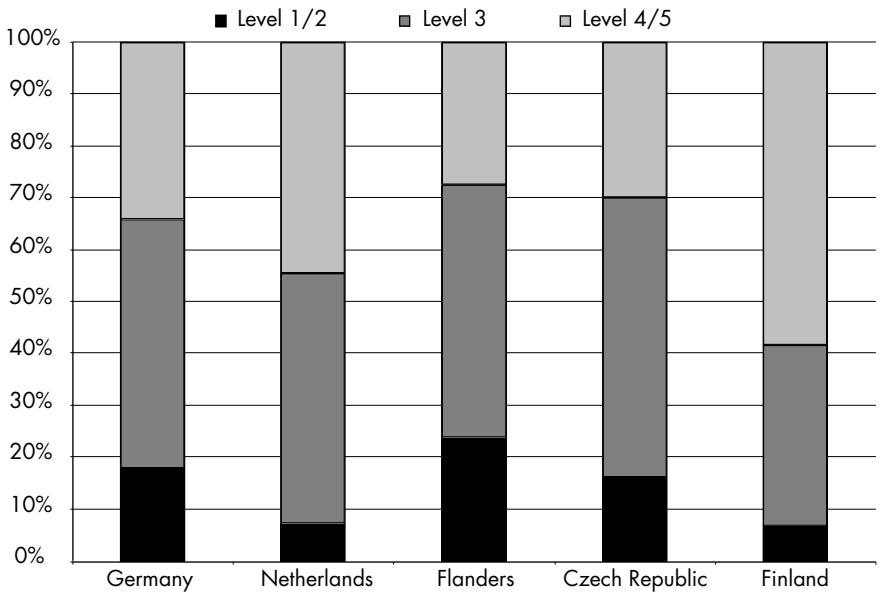


Figure 4.8 looks only at the literacy levels of vocational education background entrants. More than 70% score at level 3 or level 4/5 in the Czech Republic and the Netherlands; the high level 4/5 score in the Czech Republic (31.2%) is impressive. In Finland and Flanders around 65% of entrants score at level 3 or level 4/5. The position of Germany, the nursery of vocational education, is again fairly surprising, with only 59% scoring at level 3 or level 4/5.
The performance levels of the different countries in skills like literacy and numeracy broken down according to general and vocational education are also of course affected by the characteristics of the different educational systems. Is there vocational education at the tertiary level for instance, or is it limited to secondary education? So as to be able to adjust for factors like this, figures 4.9 and 4.10 look into literacy scores gained at ISCED 3 level by general background and vocationally linked background entrants respectively.

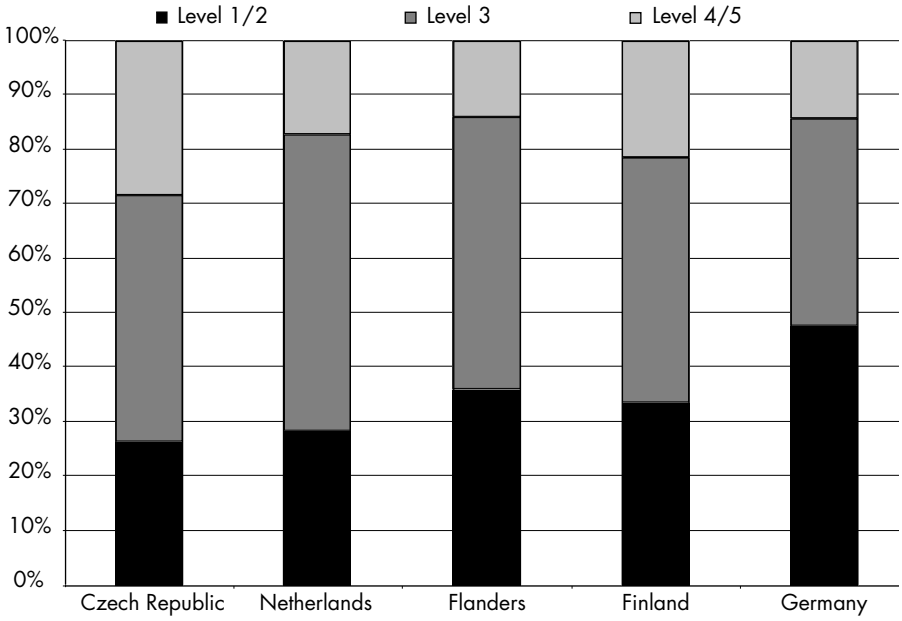
Figure 4.9 **Documentary literacy in five countries for general education, ISCED 3 level, level 1 and 2 combined, ages 16-65, weighted**



Even when adjustments are made for educational level, the differences in skills between general education background entrants and vocational education background entrants often remains very large. The biggest differences are found in Germany and Finland. In Germany 17.7% of general educational background entrants at ISCED 3 level score at level 1 or level 2 on the documentary literacy scale. The corresponding percentage for vocational education background entrants at ISCED 3 is 47.5%. These percentages in Finland are 6.6 and 33.3% respectively. In skills terms, this appears to be a class difference. There are big differences too in the Netherlands, with 7.2% of general education background entrants at ISCED 3C scoring at level 1 or 2 versus 28.2% of vocational education background entrants. Only the Czech Republic "escapes" from this strongly marked division between general and vocational education, with scores of 16.1% for general education background entrants and 26.3% for vocational education background entrants.

If we take a look at the distribution of literacy scores between entrants with vocational education qualifications only, it is easy to see that these results are no different in principle from the results of the earlier analyses involving all educational levels, but with the difference that the percentage of entrants scoring at level 3 or level 4/5 in Germany then falls to 52.5%.

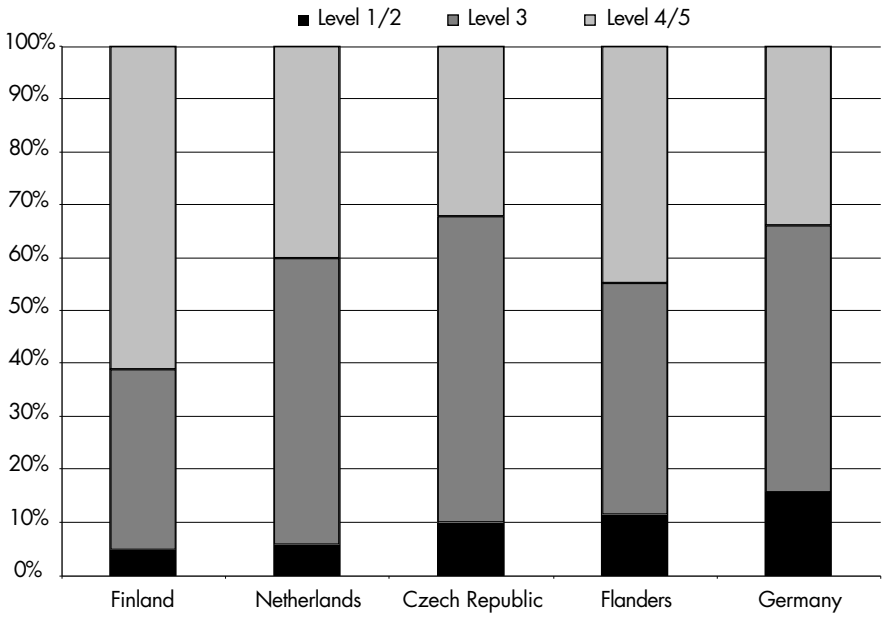
Figure 4.10 **Documentary literacy in five countries for vocationally linked education at ISCED 3 level, level 1 and 2 combined, ages 16-65, weighted**



These analyses include the whole of the labour force aged 16 to 65; the results accordingly reflect the influences of the past on educational systems as well as other influences that affect literacy. In order to correct for these, figures 4.11 and 4.12 show the results of the same analysis, but confined to the 16-25 age group.

Even within this limited group, where corrections have been made for educational level and age, we still see significant differences in skills between general education background entrants and vocational education background entrants. Let us take Germany and the Netherlands as an illustration. In Germany, 15.5% of 16-25-year-olds with a general ISCED 3 level educational background score at level 1 or level 2, while the corresponding percentage for vocational education is 43.8%, nearly twice as high. Percentages in the Netherlands are 5.6% and 21.7% respectively. These are lower percentages to be sure, but they do not fail to reflect significant differences between general education and vocational education. In Finland by contrast the difference in the level of skills between general education background and vocational education background entrants is significantly reduced, with 4.8% at level 1 or level 2 for general education and 14.7% for vocational education.

Figure 4.11 **Documentary literacy in five countries, general education at ISCED 3 level, ages 16-25, weighted**



Comparing the analysis of 16-65-year-olds (at ISCED 3 level) with the 16-25-year-old analysis allows us to investigate to a certain extent whether or not the education system has succeeded in reducing the skills gap between general education and vocational education over recent years. The only country that has been really successful in this respect is Finland. While the difference in scores at levels 1/2 between general education and vocational education for 16-65-year-olds remained at 26.7%, for the 16-25-year-old group this percentage has been reduced to 9.9%. There was a slight reduction for the Netherlands, while the differences actually increased slightly in the Czech Republic and Flanders. The large difference in Germany showed hardly any reduction at all (see also table 4.2).

Figure 4.12 **Documentary literacy in five countries, vocational education, ISCED 3 level, levels 1 and 2 combined, ages 16-25, weighted**

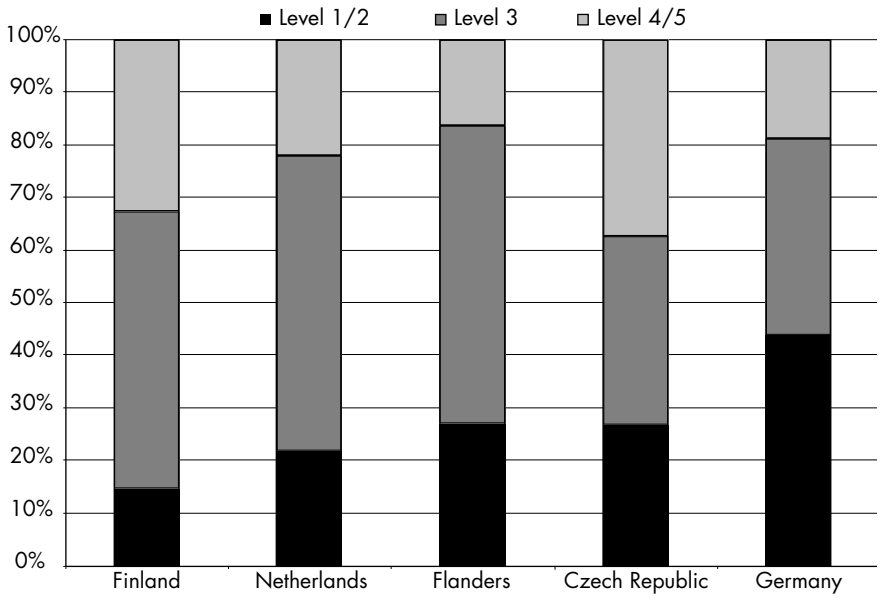


Table 4.2 **Documentary literacy at levels 1/2, general and vocationally linked education at ISCED 3 level for the 16-65-year-old group and the 16-25-year-old group (weighted)**

	General	Voc. Orientated	General	Voc. Orientated
Czech Republic	16.1%	26.3%	10.0%	26.6%
Netherlands	7.2%	28.2%	5.6%	21.7%
Finland	6.6%	33.3%	4.8%	14.7%
Flanders	23.8%	36.0%	11.3%	27.1%
Germany	17.7%	47.5%	15.5%	43.8%

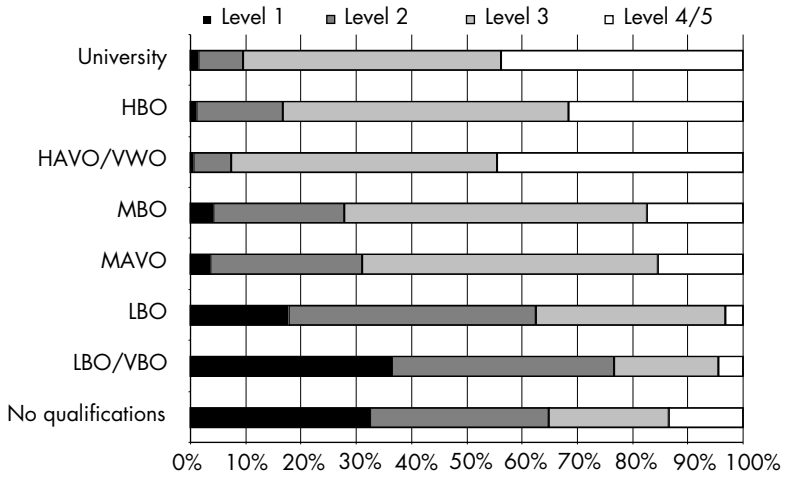
If we confine our view only to vocational education at the ISCED 3 level for 16-25-year-olds (figure 4.12 and table 4.2), we can distinguish three country groups, based on the number of entrants scoring at level 1 or level 2. Heading the list is Finland, with 14.7%. The Netherlands comes next with 21.7%, followed by Flanders and the Czech Republic with 27.1 percent and 26.6% respectively, and finally Germany, where 43.8% of vocational education back-

ground entrants scored at level 1 or level 2. In most countries, though with the exception of the Czech Republic and Flanders, these figures reflect a (slight) improvement that has taken place in the 16-65-year-old group, Finland being well ahead of the rest. Improvement in the Netherlands has been modest.

4.4.4 A closer look at the Netherlands

For the Netherlands it was possible to carry out the analysis in slightly greater detail. Figure 4.13 shows documentary literacy levels for the Dutch labour force broken down according to educational background.

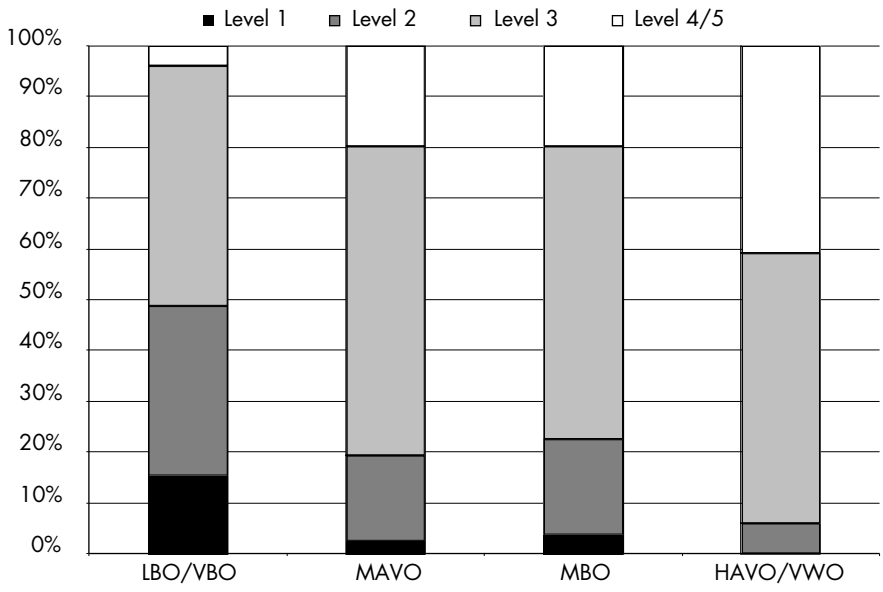
Figure 4.13 Documentary literacy according to educational background in the Netherlands, ages 16-65, weighted



Relations between literacy and educational background are all highly significant and lie within the anticipated direction. Lower levels of educational attainment correspond with lower levels of literacy. Also, as found earlier, there are significant differences between the general stream and the vocationally linked stream. These differences are greatest between MAVO and LBO/VBO, slightly less between HAVO/VWO and MBO, and relatively modest between university and higher professional education. Individuals with an HAVO/VWO background even score higher than people with an HBO background, though the VWO background 16-24-year-old group scores significantly higher than the equivalent HAVO background group (Houtkoop, 2000).

The analysis was repeated for the 16-24-year-old group in order to obtain clearer insight into the direct influence of the skills being measured here on the educational programme being studied (see figure 4.14). The results are restricted to LBO/VBO, MAVO, MBO and HAVO/VWO, since higher education background numbers are too small.

Figure 4.14 **Documentary literacy in the case of four programmes, ages 16-24, weighted**



It is clear from figure 4.14 that for this group too, the literacy scores of those with a general education background are much better than for those with a vocational education background. The "jump" from LBO/VBO to MAVO is relatively large; of those with an LBO/VBO background, around 50% score at level 1 or 2, while for those with a MAVO background the equivalent score is 20%. In terms of literacy, young people with a MAVO background differ little from those with a background in MBO. The "jump" from MBO to HAVO/VWO is again a large one; 40% of young people with a HAVO/VWO background score at level 4/5, as compared to 20% of those with an MBO background.

Within this group, those with a VWO background do significantly better than those with a HAVO background. In view of the high literacy level of the overall HAVO/VWO group, this fact underscores the high literacy level of VWO matriculants.

In general there is a strong relationship between level of education and literacy. This is certainly the case in the Netherlands, but it applies equally well to the other countries studied. At the same time, the IALS study shows that educational background is not the only predictor of literacy. Of those who had only completed primary education, 25% still performed at level 3 or higher, while 15% of those who had completed higher education were unable to score any higher than level 2. It is clear that in addition to education, other factors also play a role in the development and the maintenance of literacy. This would argue that when it comes to research into human capital among the different countries, it is not only particular levels of educational attainment that should be held in view but also the actual skills that people possess, such as those measured under the IALS project for instance.

4.5 Summary and conclusions

In general, little data is available regarding the performance of participants and ex-participants in vocational education in tests that measure skills. Large-scale international assessment projects such as TIMSS, IEA and PISA mostly focus on younger participants. This is to be regretted since in the absence of this data it is difficult for statements to be made regarding the performance of this part of the education system and with regard to the question of whether or not this performance might be benchmarked in an internationally comparative perspective. Vocational education has a specific problem in this regard. Large-scale international comparative surveys concentrate mainly on general skills such as reading, information processing, arithmetical/mathematical skills or problem-solving. According to some, vocational education concerns itself mainly with work or sector specific skills that are strongly context bound and which therefore hardly lend themselves at all to international (or even national) comparisons. We do not see eye to eye with this view, since more general skills lie at the basis of these more specific skills, and because the labour market appears to be calling out for more general skills with increasing regularity and persistence. It is therefore strongly to be recommended that these assessments should be extended to include the older age groups. ALL and PISA, both based on the same theoretical foundation, offer a good starting point from this perspective.

That is not the whole story. Based on IALS and a sub-study by TIMSS, it is perfectly possible for statements to be made regarding the skills levels of those with a background in (upper) secondary education in general and of those with a background in vocational education at that level in particular.

In the TIMSS study *The Final Year*, participants at the end of secondary education were tested for their skills in mathematics and science. The comparison countries were the Netherlands, Germany, Sweden, the Czech Republic and France.

Participants in general programmes chalked up higher scores than participants in vocationally linked programmes and these differences were highly significant. The Netherlands came top in both general and vocationally linked education, with Sweden in second place. The average scores attained by German vocational education participants were relatively low. This is a matter of concern, given the fact that relatively large numbers of participants follow vocationally linked programmes in Germany. Scores appears to be alarmingly low in the case of France, for the general stream certainly, but particularly for the vocationally linked stream.
In general therefore the Netherlands performed well in the TIMSS tests, even when compared to other countries. This was true for secondary education in general, but was especially true for secondary vocational education.

The International Adult Literacy Survey or IALS project measures skills in the fields of literacy and numeracy. The comparison countries in this case were the Netherlands, Germany, the Czech Republic, the United Kingdom, Flanders and Finland. A relatively large share of the Finnish labour force scores at the highest level for literacy (level 4/5). The Czech population is strong in numeracy. The Netherlands is strong at the mid level, level 3, and takes up an average position at the highest scale level. The Netherlands has relatively few people at the lowest level, level 1, a position shared with Finland and Germany. The United Kingdom finally has a relatively large number at the lowest level, level 1, more than a fifth of the labour force.

If we look at this younger age group (16 to 25), the generation of the future, the first striking thing we encounter is the excellent performance of Finland: around 40% of young people at level 4/5 and around 85% at level 3 and level 4/5 combined. This forms a sharp contrast to the situation in the United Kingdom where only 55% of 16-25-year-olds score at level 3 and level 4/5. Fairly dramatic is the fact that 18% of young people in the United Kingdom are unable to progress further than the lowest level, level 1. In the same way as Finland, the Netherlands does well with this group of young people, with around 75% at level 3 and level 4/5 combined. The biggest difference with Finland is the large share accounted for by Finnish young people at level 4/5. A further analysis carried out for this group of young people in which corrections were made for educational levels showed broadly the same results.

Striking, and also fairly shocking, is the very large difference in literacy between adults with a background in general education and adults with a background in vocational education. The share taken by participants with a vocational education background at levels 1 and 2 is often two to three times as large as the share in these categories taken by those with a background in general education. To illustrate, in Finland the share of people with a general education background who score at level 1 or 2 is 9.2%, while the corre-

sponding percentage for those with a vocational education background is 33.0%. The figures for the Netherlands point in the same direction, with 7% and 28% respectively. Only in the Czech Republic is the difference less extreme; of people with a background in general education 15.0% score at level 1 or level 2, while the corresponding percentage for those with a background in vocational education is 25%.

Even where adjustments are made for educational level, the differences in skills between those with a background in general education and those with a background in vocational education often remain very large. The biggest differences are to be found in Germany and Finland. To illustrate: 18% of those with a background in vocational education at ISCED 3 level in Germany score at (the low) levels 1 or 2 on the documentary literacy scale, while for those with a background in general education at ISCED 3 level this percentage is 48%. In terms of skills, this almost amounts to a class distinction. The differences are also large in the Netherlands, with 70% at level 1 or 2 for those with a background in general education at the ISCED 3 level and 28% in the case of those with a background in vocational education at the ISCED 3 level. Only the Czech Republic "escapes" from this strong separation between general and vocational education. Even when adjustments are made for both educational level and age, we still see significant differences in terms of skills between those with a general educational background and those with a vocationally linked background.
Comparing the analysis of 16-65-year-olds (at ISCED 3 level) with the 16-25-year-old analysis allows us to a certain extent to investigate whether or not the educational system has succeeded in reducing the skills gap between general education and vocational education over recent years. The only country that has been really successful in this respect is Finland. While the difference in scores at levels 1/2 between general education and vocational education for 16-65-year-olds remained at 26.7%, in the case of the 16-25-year-old group this percentage had been reduced to 9.9%. There was a slight reduction in the case of the Netherlands, while in the Czech Republic and Flanders, these differences increased slightly. The large difference in Germany showed hardly any reduction at all.

A separate analysis of the Dutch data again brought to light significant differences between the general stream and the vocationally linked stream. These differences are greatest between MAVO and LBO/VBO, slightly less between HAVO/VWO and MBO and relatively modest between university and higher professional education. If we confine our view to young people only, it is clear that that the literacy scores of those in this group with a background in general education are much better than those with a background in vocational education. The "jump" from LBO/VBO to MAVO is relatively large, of those with an LBO/VBO background, around 50% score at level 1 or 2, while for those with a MAVO background the equivalent score is 20%. In terms of

literacy, young people with a MAVO background differ little from those with a background in MBO. The "jump" from MBO to HAVO/VWO is again a large one; 40% of young people with a HAVO/VWO background score at level 4/5, as compared to 20% of those with an MBO background.

In summary we can state that Dutch people with a background in (upper) secondary education do relatively well in international comparisons based on (general) skill measurements. This applies both to the labour force as a whole and to young people. Of all the countries studied, Finland was the only country that appeared to do (much) better here. Generally speaking the skill differences between those with a background in general education and those with a background in vocational education were (extremely) large. Only the Czech Republic escaped from this class division. Only Finland was successful in bringing about a significant reduction in this major difference. Once again Dutch people with a background in secondary vocational education, both adults and young people, did relatively well in the comparisons. This is to be qualified by the comment that even here, young people in Finland did better. The relatively low position of Germany, the cradle of vocational education, is a cause of some astonishment.

The results are in line with the PISA results on leading skills, mathematical skills and science subjects skills. The scores attained by Dutch pupils in these skill areas are well above the EU and OECD average, and rank among the top scores of the countries studied. While it is true that these tests are administered to 15-year-old pupils, this is an age group already very close to the age groups analysed here (OECD, 2001a).

5 The basic qualification and labour market perspectives

5.1 Introduction

The part of the project that concerns the relationship between the basic qualification and the labour market perspectives with which it is associated was carried out by Rolf van der Velden of the Research Centre for Education and Work *(Researchcentrum voor Onderwijs en Arbeid - ROA)*, with the collaboration of Maarten Wolbers, Robert de Vries and Patrick van Eijs.

The structure of the chapter is as follows. Section 5.2 goes into the question of how the value of a programme can be established and the methods by which a demarcation criterion can be found so as to specify a minimum level as the basic qualification. Examined on the one hand will be the extent to which labour market theories can offer a basis for such a demarcation. Explored on the other hand will be the arguments that figured in the policy of both the Ministry of OCW and the OECD when it came to defining a particular level as the basic qualification or as "level completion".

Section 5.3 will compare the value of the Dutch basic qualification (WEB level 2) with the programmes immediately above it (levels 3 and 4) and the programmes immediately below it (level 1 and VBO). This analysis takes place on the basis of school-leaver research carried out by the ROA. Proceeding from the premise that level 3 and level 4 lead to a basic qualification in any case while level 1 and VBO do not, the position of programmes at level 2 allows us to investigate whether these are more similar to one group of programme or the other. Where the labour market value of a basic qualification does not differ substantially from that of programmes not regarded as a basic qualification, while there is a distinct difference as regards programmes at level 3 and level 4, there can indeed be some doubt about whether level 2 really offers us an adequate basic qualification.

Section 5.4 reports on a later study into the labour market perspectives of those in possession of a basic qualification. The measurements used as the basis of the earlier analysis related to cohorts leaving school in 1997-1998 and 1998-1999, years of economic boom. In order to compensate for economic effects, the analysis was repeated for cohorts leaving school in 1999-2000 and 2000-2001, years in which economic conditions were deteriorating. Section 5.4 also takes a look at sector differences. This analysis work falls outside of the terms of the actual project, but the results in question were generously made available to us by the ROA.

Section 5.5 determines the value of the Dutch basic qualification by means of an international comparison of the relative positions of those in possession of an ISCED level 3C short diploma. This comparison takes place based on data from the European Union Labour Force Surveys (EU LFS). Here again, the crucial point at issue is the position of the ISCED level 3C with respect to programmes immediately above and below it. The point of reference for the Dutch programmes at ISCED level 3C short are foreign programmes at ISCED level 3C short, a simultaneous comparison being made with other programmes at ISCED level 3 (3A, 3B and 3C long) and ISCED level 2.

Section 5.6 contains the chapter's conclusions.

5.2 The value of a programme

5.2.1 The problem

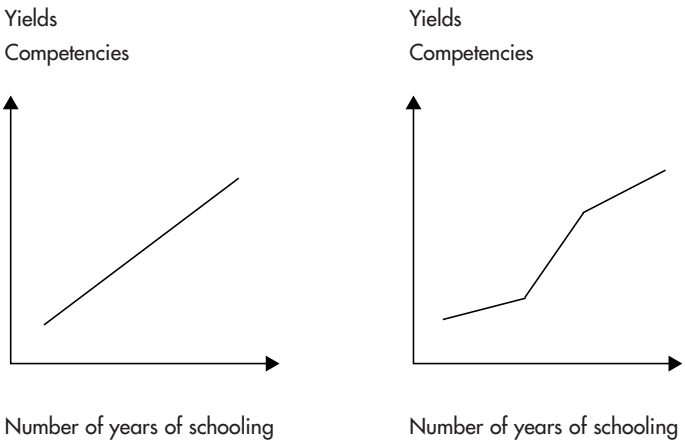
The policy aim of ensuring that everyone obtains at least a basic qualification implies the assumption that this basic qualification is necessary in order to play a fully fledged role in society. The basic qualification in other words is the key to a (good) job, a proper income, a worthwhile social position in society, etc. The term was introduced for the first time in a recommendation made by the Rauwenhoff committee (1990) and was subsequently elevated to the position of a policy norm by the Ministry of Education, Culture and Science. The value of a basic qualification will be understood in this study as the value of a programme in relation to the perspectives it provides for access to the labour market, opportunities for work and the quality of work (including pay). The focus is therefore on the yield provided by a programme. This again implicitly means that programmes intended to result in a basic qualification must generate certain minimum yields.

Even though Dutch educational policy has elected for transparent operationalising of the basic qualification concept (namely a programme at level 2 in BOL or BBL, HAVO or VWO respectively), the intrinsic foundation of the concept is rather more diffuse. Nijhof and Streumer (1994) refer in this connection for instance to the very broad and open definition given by Droste et al. (1993): "the qualifications baggage necessary in order to function satisfactorily within society" (op. cit. in Nijhof & Streumer, 1994, p. 12). The Ministry's memorandum *Een goed voorbereide start (A well-prepared start)* states that it is important for students to attain an occupational qualification "which enables programme graduates to make an effective entrance into the labour market and which has also provided them with an adequate basis for further development during the course of their occupational careers" (OCW, 1993). Requirements are also set for personal and social qualifications. In terms of

this definition, it immediately becomes apparent that the intrinsic foundation of the concept contains at least two elements: acquisition of a particular level of competence on the one hand, and achievement of a particular level of functionality -or yield- on the other.

It is precisely when it comes to establishing these two levels that it is difficult to find a clear demarcation criterion. In principle, a demarcation can be based on two different grounds (which do not need to exclude each other). This can be illustrated from figures 5.1a and 5.1b. In figure 5.1a the relationship between number of years of schooling and level of competence achieved or expected yield is represented as a straight line. The higher the number of years of schooling, the higher the level of competence achieved or the higher the expected yield. In order to arrive at a demarcation in this case, an *absolute* assessment needs to be made regarding the desired level of competence or the desired yield based on social considerations. These are the kinds of absolute judgements which, either explicitly or implicitly, lie at the root of policy on the basic qualification, but which we also see recurring in primary education policy and the statutory compulsory education requirement. The history of compulsory education in fact teaches us that even a legislative borderline as solid as this can undergo radical displacement due to social developments.

Figure 5.1a **5.1b**



The relationship between number of years of schooling and achieved competence levels or expected yields may also proceed discontinuously however. This situation is illustrated in figure 5.1b. It is possible for instance that starting from a particular programme level, acquisition of relevant competencies becomes strongly intensified or yields increase rapidly (or the contrary of this:

that after a particular number of years of schooling the added yield factor drops off dramatically). Assuming equal costs for each year of additional schooling, a demarcation criterion could be found in this case at the point where the marginal improvement to be gained from an additional year of schooling is greatest. In other words, where the relative spurt ahead is at its maximum.

The existence of such discontinuities needs to be established on empirical grounds. This immediately confers an advantage as compared to absolute assessment, since this latter method assumes a particular social consensus. Theoretical legitimisation also needs to be established however, even for discontinuities. Empirical discontinuities can after all have a coincidental basis. In this section therefore we first look into the question of whether points of contact can be found for the existence of such discontinuities within existing labour market theories. This examination is made in section 5.2.2.

5.2.2 Theoretical viewpoints

This section takes a look at the extent to which points of reference can be found in existing labour market theories for the existence of continuity or discontinuity in the relationship between number of years of schooling is on the one hand and acquired competencies or educational yields on the other. A number of important theoretical trends covering the area of alignment between education and occupational practice will be reviewed systematically for this purpose. Where indications can be found in a theory that point towards discontinuity in the relationship between programme level and labour market position, this fact can be used alongside other data as a basis for a policy that everyone should be schooled to at least that level.

The "Human capital" theory

The formation of (economic) theories on the relationship between education and the labour market is dominated by the "human capital" theory, which finds its origin in Becker (1964). The human capital theory posits a direct relationship between level of education and productivity and by consequence, pay. The higher the level of education, the higher the pay. This implies that pay is determined solely by the level of educational attainment (or more broadly: knowledge and skills) possessed by the individual. The context (the job) in which acquired knowledge and skills are applied has no role to play. The human capital theory is deeply rooted in the neoclassical tradition. This means that it must be assumed that allocation within the labour market takes place via the price mechanism (wage competition). Human capital theory literature mainly looks at the reimbursement effects of education. In a slightly wider context, this argument also applies to other (secondary) working conditions. It needs to be emphasised that there is no room for explaining differences in

work opportunity in this theory. In the (neoclassical) world of human capital after all, the price mechanism ensures that markets determine everything in the economy and that everyone can find a place in the labour market.

In general, human capital theory literature assumes a continuous relationship between programme level and pay. More strongly, the profit (in terms of pay) gained from an extra year of schooling is assumed to be a constant (c.f. figure 5.1a). In other words, an extra year of schooling taken by a VMBO pupil results in the same amount of profit as an extra year of schooling taken by an academically trained student. As already stated, human capital theory moreover offers no perspectives for explaining differences in work opportunity. This means that no points of reference are to be found in human capital theory that might support the existence of discontinuity in the relationship between programme level and labour market position.

The "screening" theory

The "screening" theory can be regarded as the counterpart to the human capital theory. The screening theory lays emphasis on job characteristics as the most important determinants for pay. The knowledge and skills required for a job determine the productivity and thereby pay. How do people manage to get these jobs then? It is here that educational background does indeed play a major role. Education constitutes a criterion on the basis of which the employer establishes a potential employee's suitability (in other words: education functions as a "screening device"). Under the strictures of labour queue theory, which is related to the screening theory, the shortlist is used as a metaphor for this selection process (Thurow, 1975). The employer places candidates on a shortlist. The more suitable the candidate, the better his or her position in the queue.

A candidate's degree of suitability is determined by the ease by which he or she can be slotted into the job. This suitability determines the degree to which supplementary training will be necessary and the speed at which a new employee will be able to function independently within the organisation. Expressed in economic terms, the lower the adjustment costs, the more suitable the candidate.

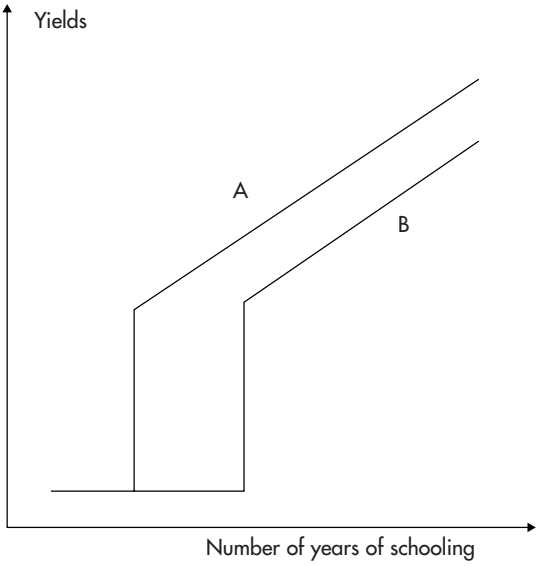
Seen generally, level of education will have a positive influence on a candidate's position in the queue. It can be anticipated that a more highly educated candidate will need less training, will be able to function independently within the organisation more quickly and will need a shorter training period than a less well educated candidate. Lower educated candidates consequently end up towards the back of the queue. According to the screening theory, it can also be anticipated that a higher educated candidate will have better labour market opportunities than a less educated candidate. With this, the screening theory not only places the emphasis on a different allocation mechanism in the

labour market to that of the human capital theory, but also offers an option for explaining possible differences in work opportunity. When all is said and done, as demand for labour falls in relation to the numbers of those seeking work, people further down in the queue are more likely to miss the boat altogether and be unable to find a job.

Mechanisms such as the ones described in the screening theory can result in discontinuity in the relationship between programme level and labour market position. Given that it can be anticipated that those with the lowest level of educational attainment will increasingly end up behind in the queue, there is a big danger they will experience difficulty finding a job. This means that discontinuity might occur in economically adverse conditions. On the positive side of the "divide", we encounter higher educated individuals who gain a good position in the queue and find it relatively easy to find a job. On the negative side of the divide are the least well educated, for whom hardly any work is available.

A problem here however is that the position of the divide depends on the relationship between demand and supply. The lower the demand for labour, the more people will miss the boat. Apart from other things, demand for labour is dependent on shifts in the economy. This implies that the worse the economic situation, the higher will be the level of education that offers decent opportunities in the labour market. In other words: in situations of economic adversity, the divide moves to the right. This is illustrated in figure 5.2.

Figure 5.2



A = economic prosperity; B = economic adversity.

Line A equates to a situation in which demand for labour is high, while line B reflects an unfavourable economic situation. From the policy perspective therefore the screening theory offers us insufficient to go on. This theory after all implies that it is the economy that to a significant extent determines the level of the basic qualification.

The "job-matching" theory

Where human capital theory lays emphasis on personal characteristics and screening theory on job characteristics, the "job matching" theory lays the emphasis on the interaction between personal characteristics and job characteristics (Hartog, 2000). The better the connection between acquired knowledge and skills and the knowledge and skills required for the job (in other words, the better the match), the better the individual functions. It can be anticipated that this better functioning will be reflected in higher remuneration. The term "comparative advantage" is introduced in order to describe an optimum system for allocating people to jobs. A person has a comparative advantage in a job where he or she performs relatively best in that job in comparison to others.

What then is the importance of the job matching theory to the subject of this study? First of all, the job matching theory underscores the importance of education to developments on the demand side of the labour market. Attention can be drawn here particularly to the increases in admission requirements for programmes due to technical and organisational developments and other developments. This process of upgrading consequently places increasing demands on the education field as a whole. It also implies an expectation that the less well educated will find things steadily more difficult. The job matching theory may therefore tend to underscore the importance of a basic qualification.

Secondly, the comparative advantage concept offers possibilities for supporting the notion of discontinuity in the relationship between level of education and labour market position. It can be anticipated that the least well educated will have a comparative advantage in jobs for which little or no schooling is required. Partly due to the upgrading of educational programme admission requirements, the importance of unschooled labour in the Dutch economy has declined dramatically. The least well educated accordingly face a threat of missing the boat altogether. Here again however the problem is that supply and demand relationships play a role. Particularly in unfavourable economic circumstances, the least well educated will have difficulty in finding jobs. If the demand for labour is high on the other hand, the least well educated will gain a comparative advantage with regard to jobs for which a certain amount of schooling is required and so will be able to secure a place in the labour market. With the job matching theory moreover, in contrast to the screening theory, it can be argued with some degree of plausibility that the labour market position of the highly educated may be more precarious than that of the

least well educated. In totally different segments of the labour market for instance, social scientists at the academic level may have less of a comparative advantage than for example care workers trained at MBO level. It is therefore entirely possible, depending on supply and demand relationships in the relevant labour market segments, for unemployment among social scientists to be higher than among trained care workers.

As in the case of the screening theory, the job matching theory gives us too little to go on from a policy perspective. In the final analysis, the job matching theory would also imply that supply and demand relationships in specific segments of the labour market, themselves subject to economic shifts, determine the level of the basic qualification to a significant extent.

Segmentation theories

The notion that the labour market cannot be regarded as a single whole, but that there are labour market segments with their own allocation mechanisms, is the point of departure for a large number of theories on how the labour market functions. Examples of these are the insider-outsider theory and the internal labour market theory. Each of these theories has its individual approach. Of primary interest in the context of this study is the Lutz and Sengenberger theory (1974), since it posits a relationship between allocation mechanisms in the various segments and the qualifications required. Lutz and Sengenberger propose that there are three segments:

1 the business-specific submarket (roughly corresponding to the internal labour market concept used in Anglo-Saxon literature on the subject);
2 the occupation specific submarket or trade submarket; and
3 the non-specific submarket ("Jedermanns Qualifikation", roughly corresponding to the secondary labour market concept).

Business-specific skills play an important role in business-specific submarkets. These specific skills offer the employer a greater likelihood of retaining the employee. The employee is able to build up a career within the organisation. From the employer's perspective, the primary task in initial education is that of learning cognitive skills. These cognitive skills enable the employee to function within the organisation and so gradually acquire business-specific skills. The level of the educational programme followed determines the level of the cognitive skills acquired to a significant extent. A secondary level education programme is therefore the minimum essential requirement for gaining entry to the business-specific submarkets.

Trade submarkets contain jobs for which occupation-specific skills are extremely important. The content of the job differs specifically between occupations and much less between companies and organisations. Opportunities for advancement are generally less than those in internal labour markets. From the perspective of the trade submarket, the employee's education (which

must be taken as including the dual programmes) principally accounts for the task of learning occupation-specific skills. A vocational course is essential in order to gain access to a trade submarket and national standardisation of the final attainment levels of these programmes guarantees mobility between companies.

The non-specific submarket includes jobs for which no knowledge or skills at all or only very basic knowledge and skills are required. This is often work performed by less well educated employees. In general, working conditions are significantly poorer than in the business-specific and trade-specific submarkets. The wages are low, job security is often negligible and there are few if any prospects for advancement.

This distinction between business-specific submarkets, trade submarkets and non-specific submarkets underscores the importance of good (secondary) vocational education that is accessible to all. Education at a secondary or higher level is essential in order to ensure that school-leavers are in possession of the general cognitive skills that will give them access to business-specific submarkets. It is occupation-specific qualifications on the other hand that regulate access to the trade submarkets. Where a school-leaver has acquired neither the necessary general cognitive skills nor the necessary occupation specific skills in initial education, the likelihood is high that he or she will end up in the non-specific submarket where there is little if any call for general or occupation-specific skills.

This being so, the segmentation theory of Lutz and Sengenberger (1974) offers possible support for the existence of discontinuities in the relationship between level of education and labour market position. Under this theory, the divide occurs at the level of education that allows a school-leaver access to the business-specific submarkets and/or the trade submarkets. The non-specific submarket after all has significantly poorer working conditions than the business-specific submarkets and the trade submarkets.

Institutional theories

Institutional measures can also lead to a discontinuity in the relationship between level of education and labour market position. An important example of this is the minimum wage. The minimum wage is an instrument intended to guarantee a minimum subsistence level to all. It is accordingly a means of bringing about a fairer distribution of incomes. The consequence of the measure however is that it disrupts the free operation of the labour market. It can mean for instance that employers find it unattractive to take on unskilled employees. Employers argue in these cases that the performance of unskilled workers no longer compensates for the (wage) costs involved in employing them. Only a certain level of performance therefore can guarantee a good position in the labour market. The theories described have shown that it is

plausible to believe that education has a positive effect on the level of performance. Where from an employer's perspective, the knowledge and skills possessed by an individual place him or her in a position to achieve a level of performance that justifies the minimum wage, the chance of a candidate's finding work is high. Where this level of performance is not achieved, the chance of finding work is slight. A discontinuity may therefore exist in the relationship between level of education and labour market position. The divide in this case is centred on the performance or programme level that represents a balance vis à vis the minimum wage. A weaker labour market position manifests itself mainly in a diminished chance of finding work, poorer work security or quality of the work offered, but hardly if at all in primary working conditions. These conditions after all are institutionally determined and they place unskilled employees who do manage to find work in a relatively good position.

5.3 The basic qualification in the Dutch context

5.3.1 Data and methods

In this section we compare programmes at level 2 with programmes immediately below them in the structure (level 1 and VBO) and immediately above them (levels 3 and 4). The position taken up by programmes at level 2 in this comparison is a fair indication of the value of these programme. The basic assumption adopted for the analysis is that programmes at levels 3 and 4 provide a basic qualification in any case, while programmes at level 1 and VBO do not. The debate currently going on between the OECD and the Dutch policy standpoint relates to the question of whether programmes at level 2 are to be classified in the first group or in the second. Where it emerges from the programme comparisons that programmes at level 2 are similar to programmes at level 3 and level 4, but are to be distinguished from those at level 1 and VBO, it can be assumed that programmes at level 2 offer school-leavers an adequate basic qualification. The moment it appears that programmes at level 2 are indistinguishable from programmes at a lower level however, while a clear distinction exists between level 2 programmes and programmes at levels 3 and 4, this assumption is to be doubted.

In general, school-leavers with a higher level of education are more successful in the labour market than school-leavers with a lower level of education. It was already indicated in the previous section that the relationship between yields to be gained from a programme and the duration of the programme might be either continuous or discontinuous. Where the relationship is continuous, the labour market position of school-leavers improves at a fixed percentage rate for each additional year of schooling. Where the relationship is discontinuous, there is an instance of disproportionate improvement in labour market posi-

tion that commences from a particular level of educational achievement. The position of this "divide" in the relationship indicates the level of educational attainment that gives rise to a relatively strong leap ahead as compared to the previous level. This fact might then be used to support the policy that students should be schooled to attain at least that level.

The data used in this section is taken from the *Registration of School-leaver Numbers and Destinations (Registratie van Uitstroom en Bestemming van Schoolverlaters* - RUBS) report drawn up annually by the ROA. The study relates to school-leavers from pre-vocational education (VBO), general secondary education (MAVO, HAVO, VWO) and secondary vocational education (BOL, BBL). Two surveys of school-leavers who left school with a diploma at the end of the 1997-1998 and 1998-1999 school years have been used for the purpose of the present analysis. These school-leavers were interviewed approximately eighteen months after leaving school. The principal objective of the study was to map out the labour market position of school-leavers in detail. The study accordingly includes information on several aspects of entry into the labour market, such as the chance of finding work, the nature of the contractual relationship and other characteristics of jobs obtained. The RUBS school-leavers study also comprises information on participation in further study programmes and the likelihood of dropping out from such further study programmes. Approximately 21,000 school-leavers from VBO, BOL and BBL participated in the study. Table 5.1 shows the weighted and non-weighted numbers of respondents for each programme level included in the analysis. School-leavers leaving VBO to continue their studies in BBL were not included in the analysis. This was so as to be able to measure in isolation the effect on school-leavers who entered the labour market with only VBO qualifications.

Table 5.1 **Non-weighted and weighted numbers of respondents per programme level for school years 1997-1998 and 1998-1999**

	Non-weighted	Weighted
VBO	3,578	70,382
BOL level 1	144	2,331
BOL level 2	1,482	20,345
BOL level 3	1,927	10,561
BOL level 4	11,088	71,680
BBL level 1	149	2,701
BBL level 2	1,246	24,775
BBL level 3	874	18,270
BBL level 4	409	8,823

In the comparison of the programmes, a first look was taken at the options available for further study (two indicators: participation in further study programmes and the likelihood of abandoning such further study programmes before completion). Entry into the labour market by school-leavers was then examined. The value of educational programmes to school-leavers entering the labour market was examined from the perspective of six indicators. These were the chance of finding paid work, the chance of finding a permanent job, the chance of finding a full-time job, the chance of finding a job in the individual's chosen educational direction or a related direction, the level of the occupation and the gross hourly wage paid to school-leavers. These indicators provide a good impression of what their educational background yields to school-leavers entering the labour market.

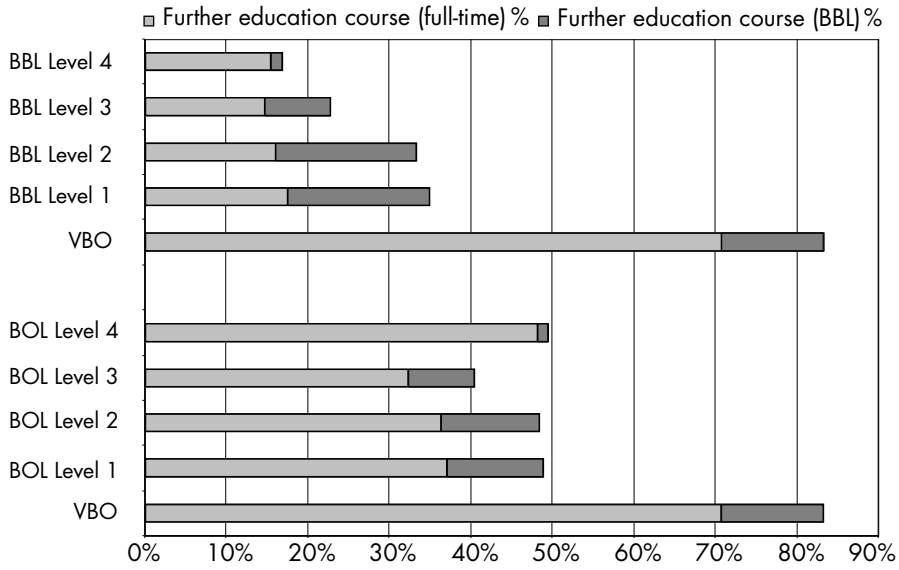
The comparison of the scores given to programmes on the basis of these eight indicators (two relating to opportunities for further study and six relating to the labour market) is presented in figures 5.3 to 5.10 inclusive. The scores given to programmes based on these eight indicators are then assessed again, but this time taking into account individual characteristics of school-leavers (gender, age, ethnic background, programme sector and year of gaining the diploma). This allows the effect of the programme studied to be assessed more closely . The results of these multivariate analyses are given in figures 5.11 to 5.17 inclusive. Separate analyses were carried out for BOL and BBL school-leavers. These provide a clearer picture of programme comparisons, since BOL and BBL school-leavers can differ significantly with respect to each other where participation in further study and labour market position are concerned, eighteen months after gaining the diploma (cf. ROA, 2001).

5.3.2 School-leavers going on to further study programmes

School-leavers who have successfully completed their education now take the following step in their career. They can opt for direct entry into the labour market or elect to continue their studies and so acquire new knowledge and skills. They can also decide to combine work and study in BBL. Figure 5.3 shows the percentage of school-leavers electing to continue their studies and the percentage deciding to combine work and study in BBL. The lower part of the graph shows the comparison between school-leavers at BOL levels 1 to 4 inclusive and VBO. The same comparison is made in the upper part of the graph between school-leavers at BBL levels 1 to 4 inclusive and VBO.

It emerges from figure 5.3 -and this is certainly not surprising- that VBO school-leavers are the ones that most often elect to follow a course of further study (more than 80%).

Figure 5.3 **School-leavers moving on to further studies, according to full-time and dual further study programmes**

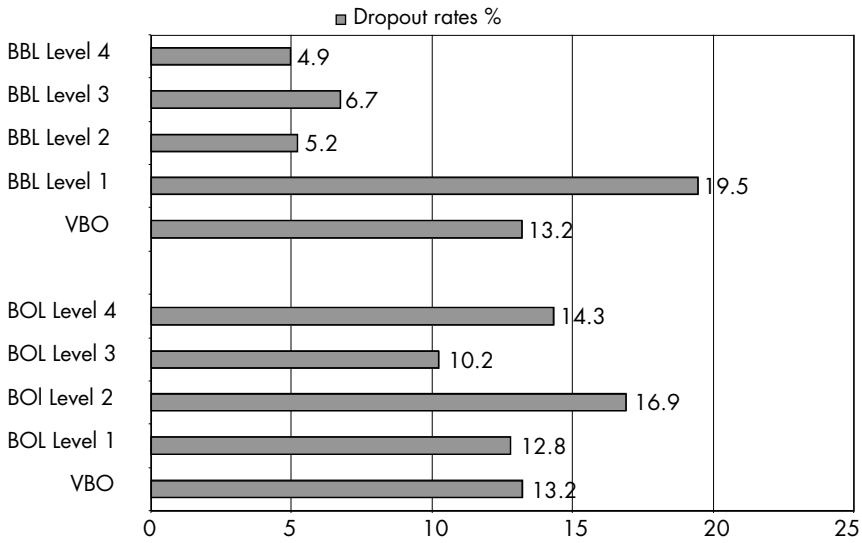


More striking is the fact that both BOL and BBL level 1 and level 2 school-leavers elect to follow a course of further study or go in for a combination of work and study equally often, while level 3 school-leavers do so less than level 2 school-leavers. It appears that programmes at levels 1 and 2 are more often seen by school-leavers as preparation for full-time or dual continuation programmes than are programmes at level 3. It is also clear that only in the case of BOL do school-leavers at level 4 elect to continue their studies equally often as do school-leavers at levels 1 and 2. The majority of school-leavers at BOL level 4 go on to an HBO programme. For BBL by contrast, the percentage of school-leavers electing to follow a continuation programme is the lowest among level 4 school-leavers.

Figure 5.4 shows the percentage of school-leavers who elect to follow a further education course that will discontinue their studies before completion (dropout rates). These are school-leavers who left a (full-time or dual) continuation programme within a year without gaining a diploma. A number of reasons can be given for this: the continuation programme may have failed to provide the anticipated connection with the programme completed earlier, motivation for further study may be lacking or an inappropriate choice may have been made, resulting in the school-leaver deciding to switch to a different programme. This means that even reasons unrelated to the programme previously completed may contribute to school-leavers deciding to leave a con-

tinuation programme before completion. We must therefore be cautious in drawing conclusions regarding the value of programmes for school-leavers who elect to go on to a subsequent study programme based on comparisons of percentages of premature school-leavers. Figure 5.4 shows that level 2 school-leavers who elect to study further within BOL are the ones that most often leave their continuation programmes before completion (17%). The percentages of school-leavers who leave their programmes prior to completion are lower for both VBO and the lower and higher programme levels of BOL. In the case of BBL there is a clear distinction between VBO and BBL level 1 on the one hand, and BBL levels 2, 3 and 4 on the other. School-leavers at the VBO and BBL 1 level appear to leave their programmes before completion more often on average than school-leavers at a higher programme level. School-leavers at BBL levels 2, 3 and 4 differ little from each other in this respect.

Figure 5.4 Premature abandonment of further education courses



5.3.3 Entry of school-leavers into the labour market

Figures 5.5 to 5.10 inclusive provide an impression of the labour market position of qualified school-leavers eighteen months after graduation. We look first at job opportunity and job security and then turn to quality of work. When discussing the labour market position of school-leavers, we should never lose sight of the fact that following a period of economic growth, the labour market became extremely tight from the end of the nineteen nineties. It is therefore

BOL and BBL school-leavers who to an increasing extent managed to find jobs more often and more quickly (c.f. ROA, 2002). This picture also emerges from figure 5.5, which shows school-leaver unemployment percentages.

Figure 5.5 Unemployment rates among qualified school-leavers

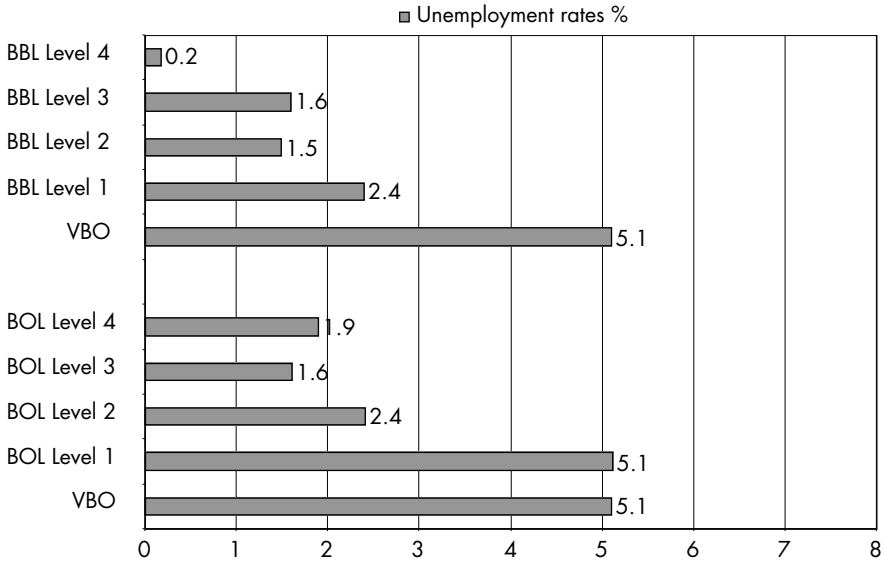
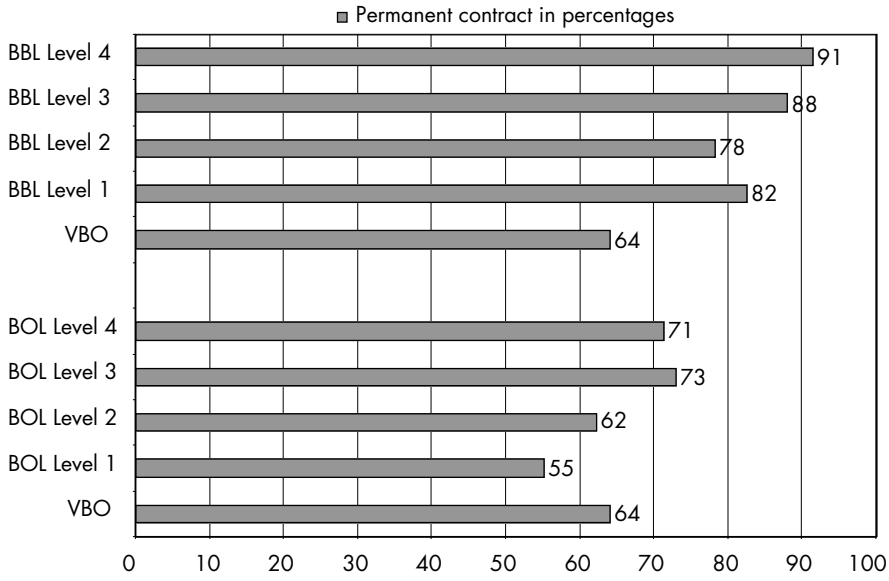


Figure 5.5 shows that by far the majority of school-leavers who placed themselves in the labour market had found paid work eighteen months after gaining their diploma. Even so, there are some (small) differences between programme levels. In the case of BOL, a distinction in the unemployment percentage can be drawn between school-leavers at BOL level 1 and VBO on the one hand and school-leavers at BOL levels 2, 3 and 4 on the other. In the case of BOL level 1 and VBO, approximately 5% of school-leavers are unemployed, while the percentage of unemployed school-leavers at BOL levels 2, 3 and 4 is approximately 2%. There is little difference between school-leavers at BBL levels 1, 2 and 3 where unemployment percentages are concerned. Approximately 2% of school-leavers at BBL levels 1, 2 and 3 are out of work. This percentage is lower than for VBO school-leavers and slightly higher than for school-leavers at BBL level 4, nearly all of whom were in paid work eighteen months after gaining their diplomas.

Figure 5.6 **Percentage of working school-leavers with a permanent contract of employment**



Conditions for school-leavers have also become more favourable due to the tightness in the labour market. Employers compete with each other more than ever in order to attract good personnel. Both primary and secondary working conditions play an important role in this "competitive battle for the job-seeker". Job security has increased significantly for BOL and BBL school-leavers for instance over recent years (see ROA, 2002). Figure 5.6 shows the percentage of working school-leavers with a permanent contract of employment. For BOL, a distinction is drawn between VBO/BOL levels 1 and 2 on the one hand and BOL levels 3 and 4 on the other. Higher levels of education result in more job security. Job security for level 2 school-leavers is at its lowest in the case of BBL. When compared to levels 1, 3 and 4, level 2 school-leavers have a permanent contract of employment less often. It remains true however that all of the BBL programmes referred to provide significantly more job opportunity than VBO.

The next graph, figure 5.7, shows the percentage of working school-leavers with a full-time job. School-leavers at BOL levels 1, 2 or 3 are more or less equally likely to have a full-time job. Only BOL level 4 school-leavers are more likely to have a full-time job than those who have completed lower-level programmes. For BBL, a distinction is made between VBO and BBL level 1 on the one hand and BBL levels 2, 3 and 4 on the other. Less than 80% of VBO and BBL level 1 school-leavers have a full-time job. At least 90% of BBL level

2, 3 and 4 school-leavers have a full-time job. It needs to be noted here however that having or not having a full-time job is strongly determined by institutional factors such as the partial compulsory education legislation, which means that lower level school-leavers automatically show a lower percentage of those in work who have a full-time job. The question therefore is whether this statistic represents a good indicator for the actual labour market value of an educational programme.

Figure 5.7 Percentage of working school-leavers with a full-time job

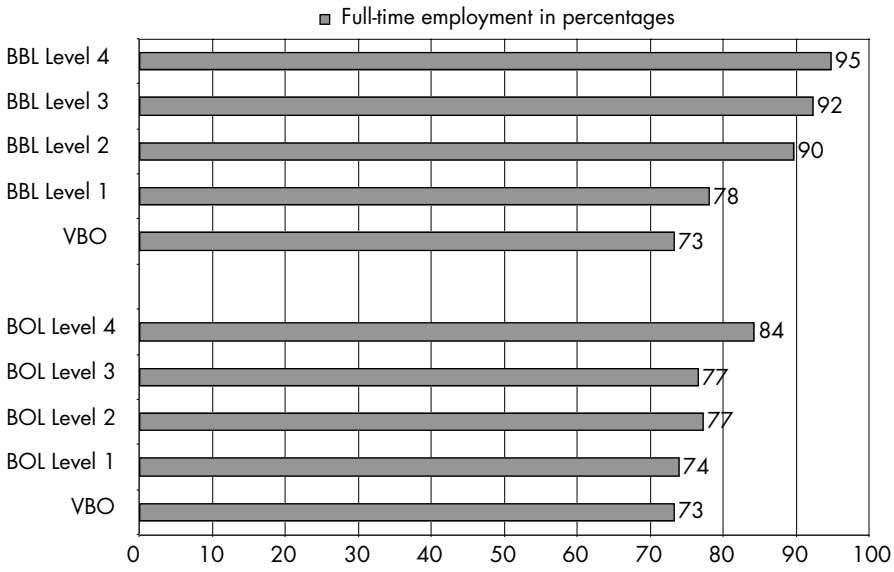
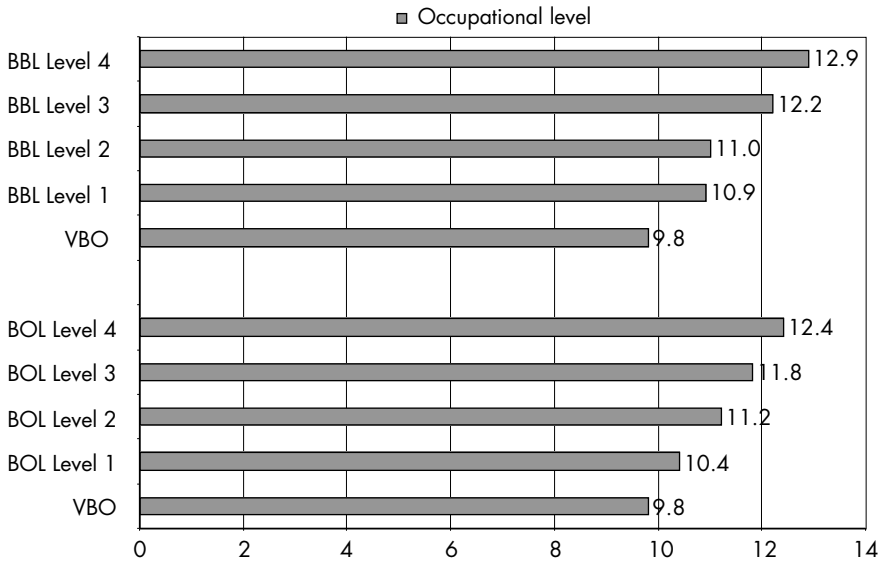


Figure 5.8 shows the occupation level of jobs held by working school-leavers. Use has been made here of occupational codes based on the CBS Standard Occupation Classification of 1992 (Standaard Beroepen Classificatie 1992 - SBC). The SBC distinguishes five levels: elementary occupations (required entry level: primary education), lower occupations (required entry level: secondary education, lower stage), intermediate occupations (required entry level: secondary education, higher stage) higher occupations (required entry level: higher education, first phase) and academic occupations (required entry level: higher education, second phase). These levels have been converted into numbers of years of required schooling (for an account of this, see ROA, 1999, p. 60). For elementary occupations this is six years, for lower occupations ten years, for intermediate occupations thirteen years, for higher occupations seventeen years and for academic occupations nineteen years.

Figure 5.8 The occupational levels of working school-leavers



With regard to BOL, it is clear that the occupational level of the job gradually rises in line with the increase in programme level. Where BOL is concerned, an increase in programme level also results in a job at a higher level. An average of 9.8 years of schooling is required for VBO jobs, for BOL level 4 school-leavers this is 12.4 years. This is not the case for BBL, where there is a clear distinction between programmes at level 1 and 2 and programmes at level 3 and 4. The average occupational level accounted for by level 1 and 2 school-leavers is more or less equivalent, each requiring 11 years of schooling, while the average occupational level accounted for by level 3 and 4 school-leavers is considerably higher. We need to qualify this however by pointing out that the SBC does not permit a highly differentiated assessment of necessary programme levels. Differences of level exist even in the intermediate occupations group, although no account of these is taken in the classification.

The comparison of the percentage of school-leavers with a job that connects with their individual sector of study or a related sector of study in figure 5.9 shows that relatively few BOL level 1 and VBO school-leavers and a relatively large number of BOL level 3 and 4 school-leavers have managed to find a job that connects in terms of direction with the programmes they studied previously. BOL level 2 school-leavers find themselves exactly in the middle of the two groups were this is concerned. BBL level 2 school-leavers managed to find a job that connects with the educational programmes studied previously less often than BBL level 3 and 4 school-leavers. Of the BBL level 2 school-

leavers, approximately 60% have a job that connects with their direction of study. At BBL levels 3 and 4, the percentage is above 75%.

Figure 5.9 **Percentage of working school-leavers with a job in their individual study sector or a related sector**

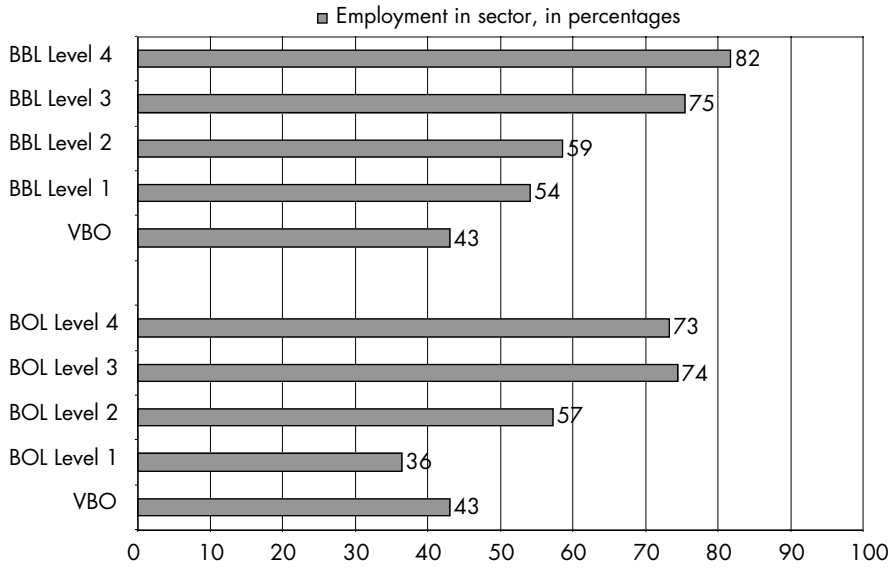
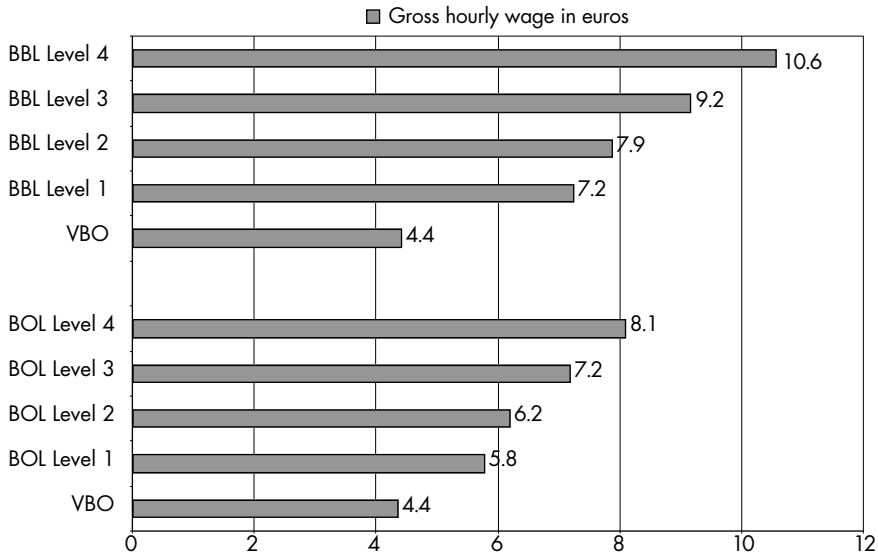


Figure 5.10 finally shows the gross hourly wage paid to school-leavers. The first thing that strikes us is that there is a considerable difference between the gross hourly wage of level 1 school-leavers and VBO school-leavers. This may be partly due to age differences, which have a strong knock-on effect where the minimum youth wage is concerned. Corrections for age will therefore be made in the following section. The second striking feature in figure 5.10 is that for both BOL and BBL, the difference between level 1 and level 2 is less than the difference between level 2 and level 3. In short, where pay is concerned, level 2 school-leavers are more like level 1 school-leavers than level 3 school-leavers. Here again however the results may be marked by age differences.

Figure 5.10 Gross hourly wage rates of working school-leavers



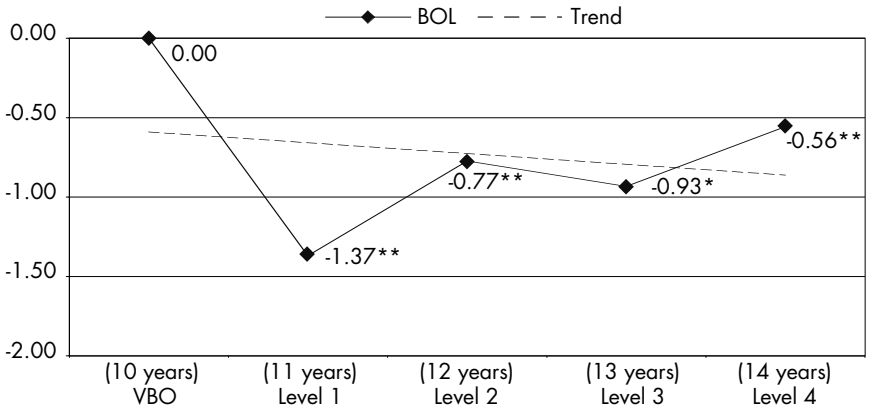
5.3.4 A closer look at the value of level 2 programmes

In the comparison of programmes so far, no account has been taken of the individual characteristics of school-leavers. It is quite possible for instance that differences between programmes are caused by age differences or by differences in the programmes themselves during the final year. The differences between the programmes were therefore analysed again, this time with corrections for gender, age, ethnic origin, sector classifications of programmes completed by school-leavers and the year in which diplomas were gained. Figures 5.11 to 5.17 inclusive show the results for VBO, BOL levels 1 to 4 inclusive and BBL levels 1 to 4 inclusive. The figures give parameter estimates for the programme levels concerned, VBO serving as a reference category. The relevant figures accordingly show the deviation with respect to VBO and can be interpreted as the effect of taking one, two, three or four years of extra schooling in BOL or BBL.

The figures show the overall trend as a broken line. This indicates the average rise for each programme level with respect to the indicator. In the case of a continuation model it could be expected that the comparison between programmes would give rise to a linear connection, since an increase of a single level also means one extra year of schooling. The (nominal) number of years of schooling from the age of six is shown, together with the programme level for those leaving VBO (ten years), up to and including those leaving level 4 (fourteen years).

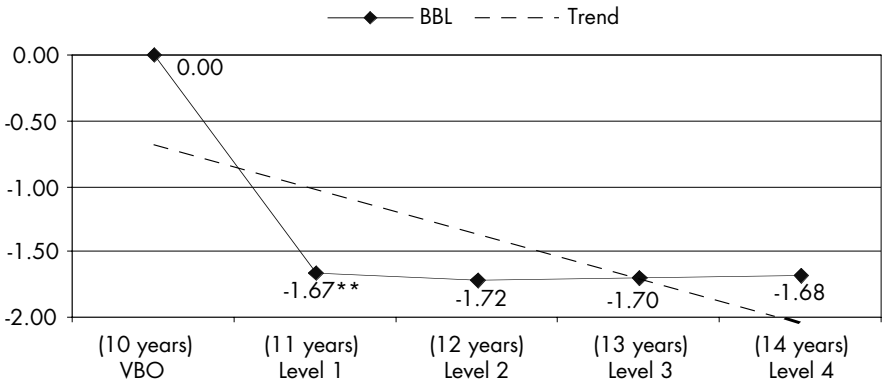
The figures also indicate whether differences between the sequential programme levels are significant. This enables an indication to be given of whether an increase of a single level (i.e. one year of additional schooling) will provide school-leavers with significantly better opportunities in the labour market.

Figure 5.11 **Likelihood of participation in (full-time/dual) further studies by BOL school-leavers, corrected**



** = significant at the 1% level; * = significant at the 5% level.

Figure 5.12 **Likelihood of participation in (full-time/dual) further studies by BBL school-leavers, corrected**

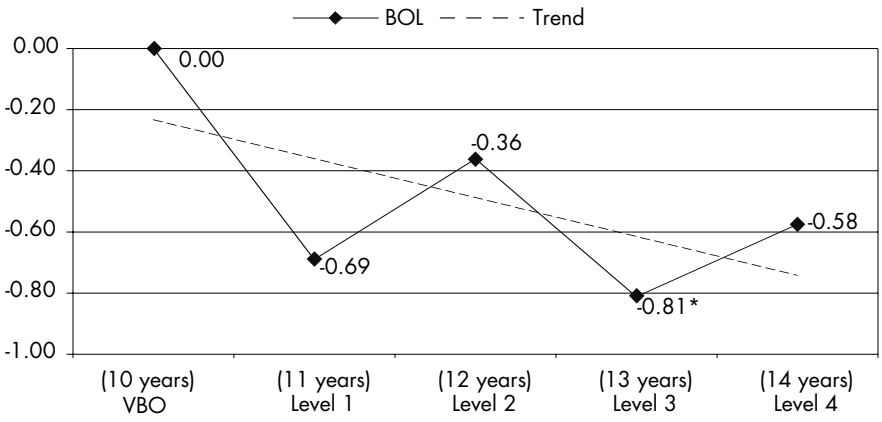


** = significant at the 1% level; * = significant at the 5% level.

Figures 5.11 and 5.12 show the number of school-leavers who go on to further education courses. Following correction for individual characteristics it emerges that VBO school-leavers are significantly more likely to go on to further studies than are BOL level 1 school-leavers. Also, where BOL is concerned, the likelihood of level 1 school-leavers deciding to continue their studies is even less than for level 2 school-leavers. Figure 5.12 shows that BBL level 1 school-leavers elect to study a continuation programme significantly less often than VBO school-leavers, while within BBL there is almost no visible difference between participation in further education courses by school-leavers from the different programme levels. BBL levels 1 to 4 inclusive differ to approximately the same extent as VBO as regards number of school-leavers who go on to further education courses.

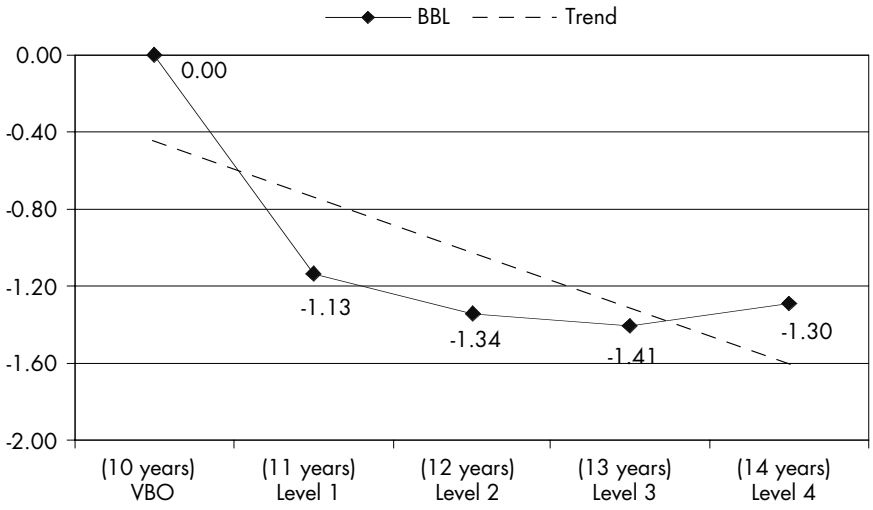
Figures 5.13 and 5.14 show the likelihood of BOL and BBL students who have elected to continue their studies abandoning their programmes before completion (dropout rates). In point of fact the likelihood of dropout in continuation programmes says little with regard to a programme's value to school-leavers in the labour market. This indicator is not therefore taken into account in the final assessment of the value of the programme for school-leavers. Following correction for the background characteristics of school-leavers, it emerges that the likelihood of dropout is greatest among VBO school-leavers who elect to continue their studies. The difference in the likelihood of dropout between VBO and level 1 programme school-leavers is not in fact significant.

Figure 5.13 **Likelihood of dropout from further education courses by BOL school-leavers electing to continue their studies, corrected**



** = significant at the 1% level; * = significant at the 5% level.

Figure 5.14 **Likelihood of dropout from further education courses by BBL school-leavers electing to continue their studies, corrected**



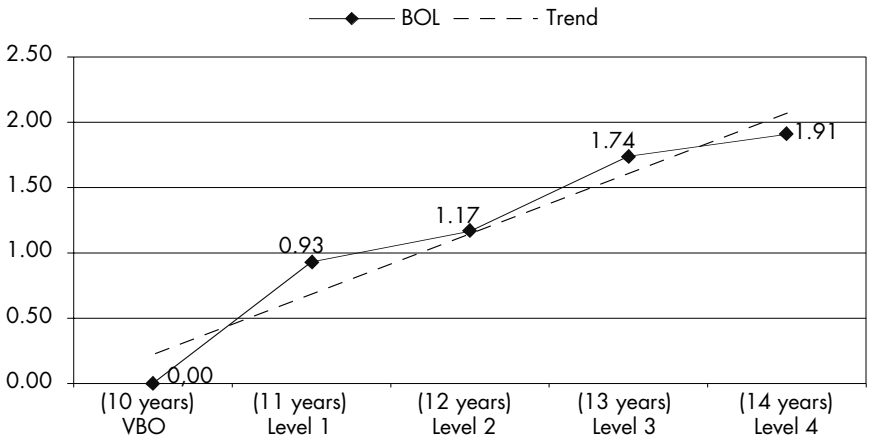
** = significant at the 1% level; * = significant at the 5% level.

Striking however is the fact that for BOL, dropout among school-leavers studying a continuation programme is highest at level 2. The difference between level 2 and level 3 is not significant here. This might be an indication that for BOL level 2 school-leavers, this level 2 programme connects less well with a continuation programme than it does for BOL level 3 school-leavers. Figure 5.14 shows that the likelihood of premature abandonment of continuation courses within BBL does not differ much between the different programme levels.

Figures 5.15 and 5.16 show the likelihood of finding work. Figure 5.15 shows that the likelihood of finding work has increased most for VBO and BOL level 1 school-leavers. It means that in the case of VBO school-leavers, a single year of extra schooling provides a significant improvement in the chance of finding work. As compared to VBO, BOL level 1 offers school-leavers a better start in the labour market where the likelihood of finding work is concerned. There is only a slight increase in the chance of finding work between BOL level 1 school-leavers and BOL level 2 school-leavers, but again there is a large increase between BOL level 2 and BOL level 3 school-leavers. It emerges from figure 5.15 that the differences between sequential programme levels are not in fact significant where the chance of finding work is concerned.

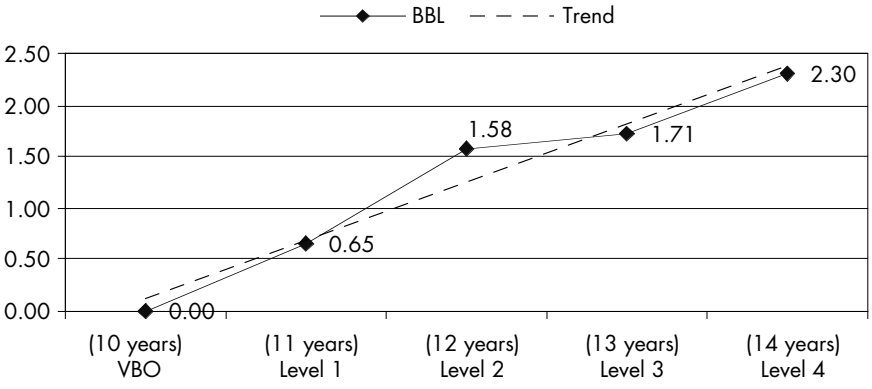
Figure 5.16 shows that the increase in the chance of finding work in the case of BBL programmes occurs particularly at the point of transition from BBL level 1 to level 2. In addition, it appears that the chances for BBL level 2 and 3 school-leavers of finding work differs little between these two levels. Here again however there are no significant differences in the chance of finding work between sequential programme levels. This probably has to do with the tightness in the labour market, as a result of which the vast majority of school-leavers have found work within eighteen months of gaining their diplomas.

Figure 5.15 Chance of finding work for BOL school-leavers, corrected



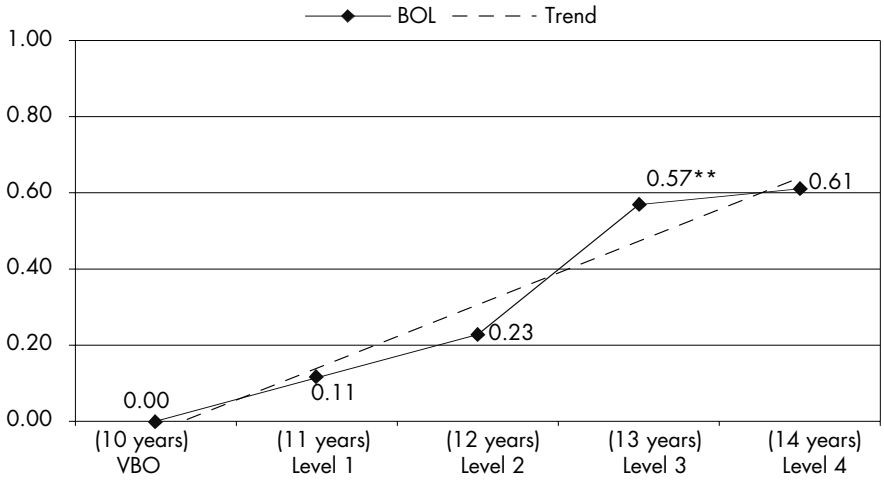
** = significant at the 1% level; * = significant at the 5% level.

Figure 5.16 Chance of finding work for BBL school-leavers, corrected



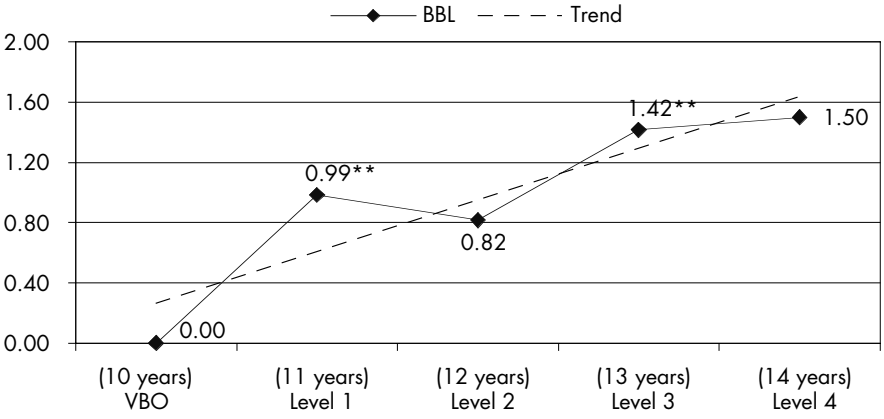
** = significant at the 1% level; * = significant at the 5% level.

Figure 5.17 **Chance of finding a permanent job for BOL school-leavers, corrected**



** = significant at the 1% level; * = significant at the 5% level.

Figure 5.18 **Chance of finding a permanent job for BBL school-leavers, corrected**



** = significant at the 1% level; * = significant at the 5% level.

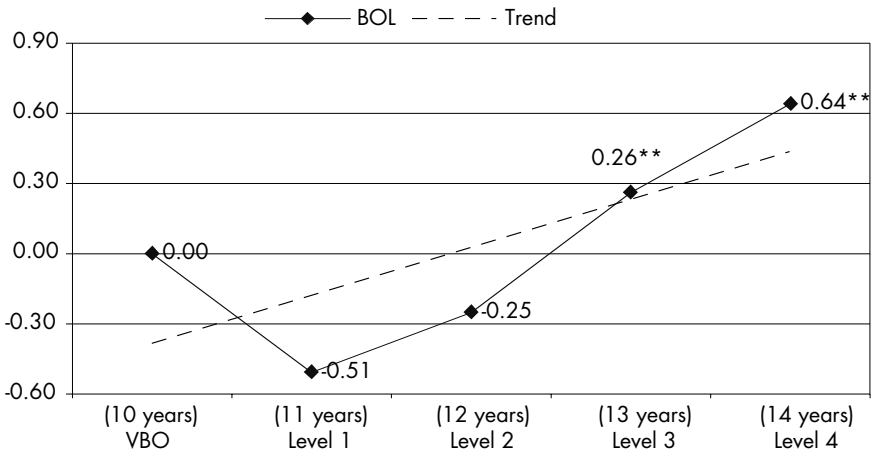
Figures 5.17 and 5.18 show the likelihood of obtaining a permanent position. With regard to BOL (figure 5.17), there is a clear distinction between levels 1 and 2 on the one hand and levels 3 and 4 on the other. The likelihood of level

3 and 4 school-leavers finding a permanent position is correspondingly greater than for level 1 and level 2 school-leavers. The figure shows a significant difference in the likelihood of obtaining a permanent job in the case of level 2 and 3 school-leavers.

With the BBL (figure 5.18), similarly, level 2 school-leavers appear to resemble level 1 school-leavers more than they do level 3 school-leavers when it comes to the chance of gaining a permanent position. The major leap forward here however occurs at the transition from VBO to BBL level 1. A single year of extra schooling provides VBO school-leavers with a significant improvement in the possibility of gaining a permanent position. The figure also shows that there is a significant improvement at the point of transition from BBL level 2 to BBL level 3.

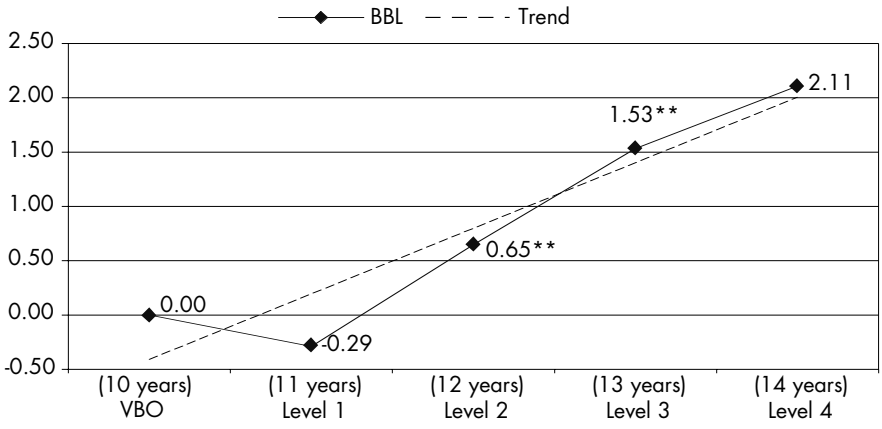
Figures 5.19 and 5.20 show that in the case of BOL and BBL school-leavers the chance of a full-time job increases in line with programme level. Level 1 school-leavers end up in a full-time job less often than do VBO school-leavers, but for both BOL and BBL, the likelihood of gaining a full-time job gradually increases with each programme level attained. The relatively high percentages of full-time jobs for VBO school-leavers is due to the selection used here: those who elected to follow a BBL programme on completion of their VBO programme have been disregarded for the purpose of determining the value of the VBO programme. The connection is almost linear in the case of the BBL.

Figure 5.19 Chance of finding a full-time job: BOL school-leavers, corrected



** = significant at the 1% level; * = significant at the 5% level.

Figure 5.20 Chance of finding a full-time job: BBL school-leavers, corrected



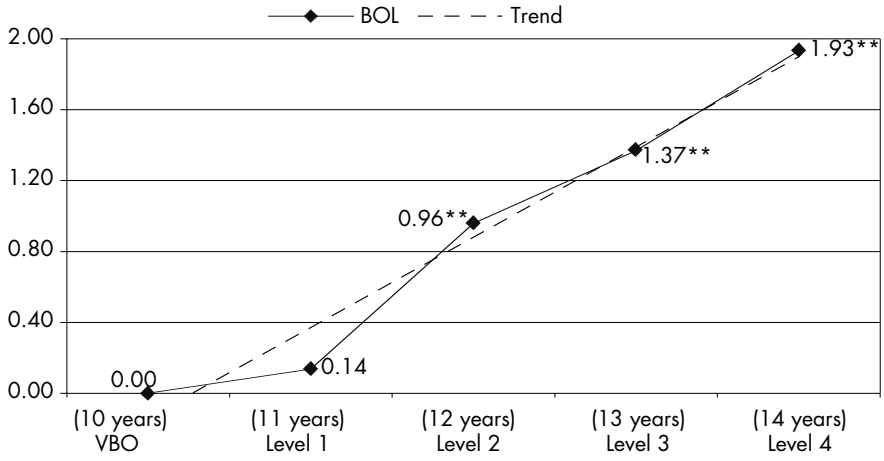
** = significant at the 1% level; * = significant at the 5% level.

The likelihood of finding a full-time job increases approximately pro rata with each successive programme level. The same applies to a slightly less extent in the case of BOL: the relative increase from BOL level 2 to BOL level 3 is greater than the relative increase from BOL level 1 to BOL level 2. The real question here though is whether we ought to attach much significance to this indicator. Most school-leavers do in fact end up with a full-time job and those who do not have a full-time job have made a conscious choice not to have one, because they wish to combine work and study in BBL for instance, or because their age precludes them from having a full-time job. As in the previous case, this indicator will not be included in the final evaluation of the value of the programmes.

Figures 5.21 and figure 5.22 show the occupational level of jobs obtained by school-leavers. BOL level 2 school-leavers distinguish themselves clearly from level 1 school-leavers with regard to occupational level. Figure 5.21 shows that the increase in occupational level is greatest at the transition from BOL level 1 to BOL level 2. Similarly there is a significant increase in occupational level of jobs starting from level 2, but the size of these increases is less than those between level 1 and level 2.

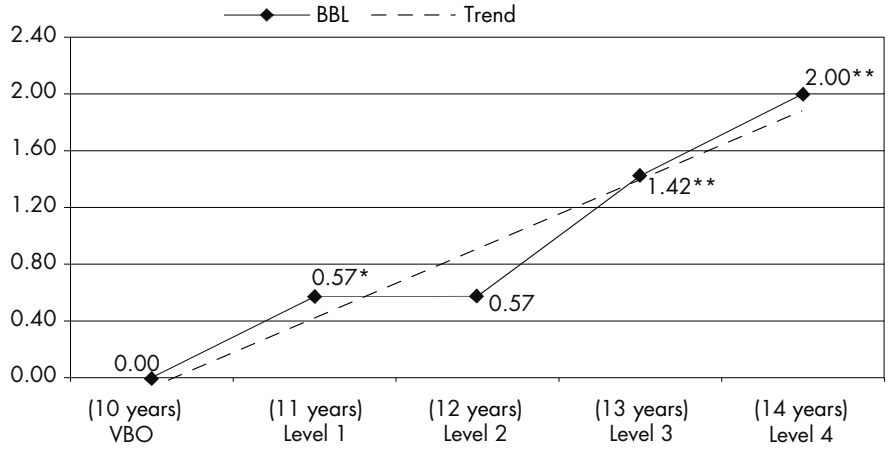
In BBL (figure 5.22), there is no difference in occupational level between BBL level 1 and BBL level 2 school-leavers. This means that for BBL level 2 school-leavers, the extra schooling does not result in a job at a higher occupational level comparative to BBL level 1. BBL level 3 school-leavers by contrast clearly distinguish themselves in terms of occupational level comparative to BBL level 2 school-leavers. Figure 5.22 shows a strong (significant) increase in the occupational level of jobs on transition from BBL level 2 to BBL level 3.

Figure 5.21 Occupational level for BOL school-leavers, corrected



** = significant at the 1% level; * = significant at the 5% level.

Figure 5.22 Occupational level for BBL school-leavers, corrected

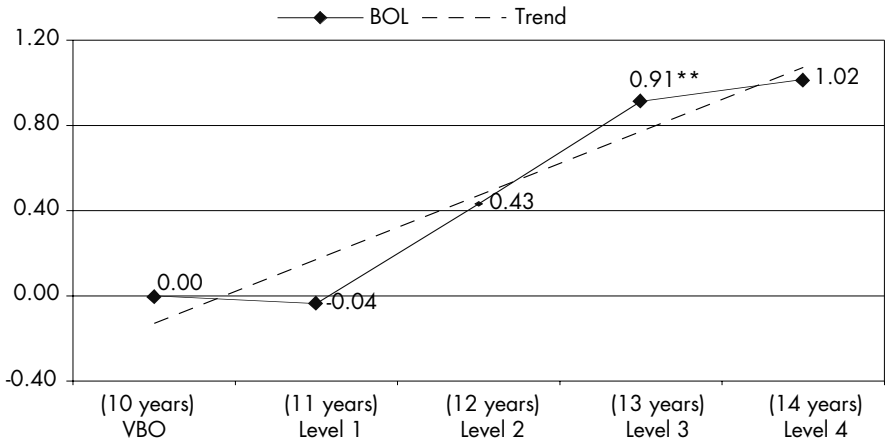


** = significant at the 1% level; * = significant at the 5% level.

Figures 5.23 and 5.24 show the results regarding the likelihood of finding a job that connects with the previous course of study. With regard to BOL, it is clear that BOL level 2 programmes provide a better chance of finding a job that connects with the previous course of study than do BOL level 1 programmes. The difference is not significant however. In addition, the likelihood of obtaining a job that connects with the previous course of study is signifi-

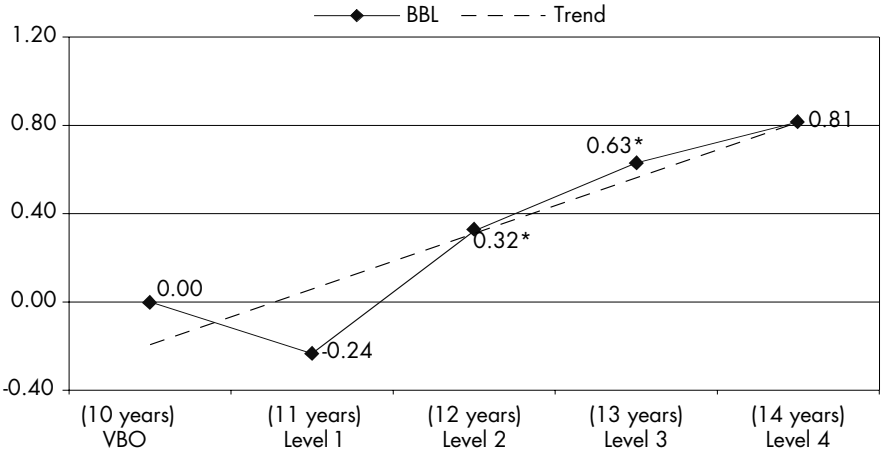
cantly higher for BOL level 3 school-leavers than for BOL level 2 school-leavers. The difference between level 2 and level 3 however is exactly equivalent to the difference between level 1 and level 2, though it must be pointed out that the difference is significant in the one case, but not in the other. This again could be due to the fewer observations made at level 1.

Figure 5.23 **Likelihood of finding a job in the individual's own sector of study or a related sector: BOL school-leavers, corrected**



** = significant at the 1% level; * = significant at the 5% level.

Figure 5.24 **Likelihood of finding a job in the individual's own sector of study or a related sector: BBL school-leavers, corrected**



** = significant at the 1% level; * = significant at the 5% level.

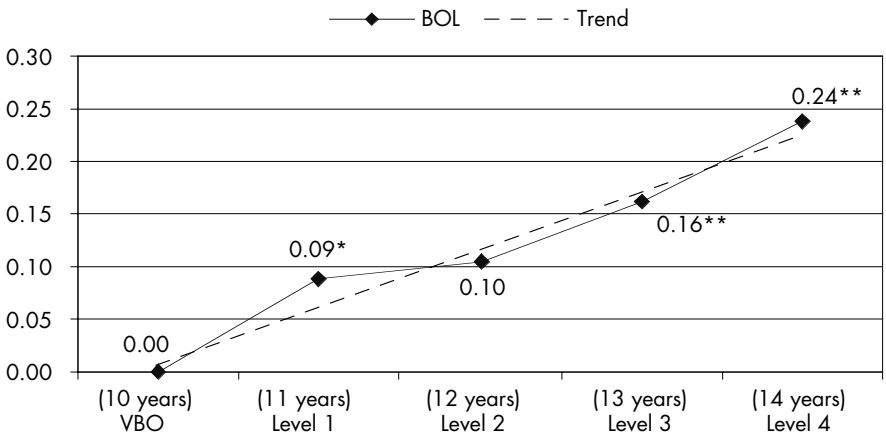
In the case of BBL (figure 5.24), the likelihood of finding a job that connects with the individual's chosen course of study increases pro rata to the level. Figure 5.24 shows that BBL level 2 school-leavers have a significantly higher chance of finding a job that connects with their course of study than BBL level 1 school-leavers. It also emerges that BBL level 3 school-leavers have a job that connects with their own course of study more frequently than BBL level 2 school-leavers. The biggest jump here though is from BBL level 1 to BBL level 2.

Finally, figures 5.25 and 5.26 show the gross hourly wage paid to school-leavers. The first point of interest to emerge is that the largest increase in gross hourly wage for both BOL and BBL occurs at the transition from VBO to level 1. The extra year of schooling with respect to VBO provides BOL level 1 school-leavers with a significant increase in gross hourly wage (9%). Next, it appears that BOL level 2 school-leavers do not earn significantly more than BOL level 1 school-leavers. The gross hourly wage does increase again significantly beyond level 2 however, in line with programme level. BOL level 3 school-leavers earn 6% more than BOL level 2 school-leavers and level 4 school-leavers in their turn earn 8% more than level 3 school-leavers.

In the case of BBL level 1 school-leavers, an extra year of schooling provides a considerable increase in gross hourly wage as compared to VBO school-leavers (18%). For BBL from then on, gross hourly wage per programme level increases fairly uniformly across the board. The gross hourly wage paid to BBL level 2 school-leavers is 6% higher than for BBL level 1 school-leavers and the gross hourly wage paid to BBL level 3 school-leavers is similarly 6% higher than for BBL level 2 school-leavers.

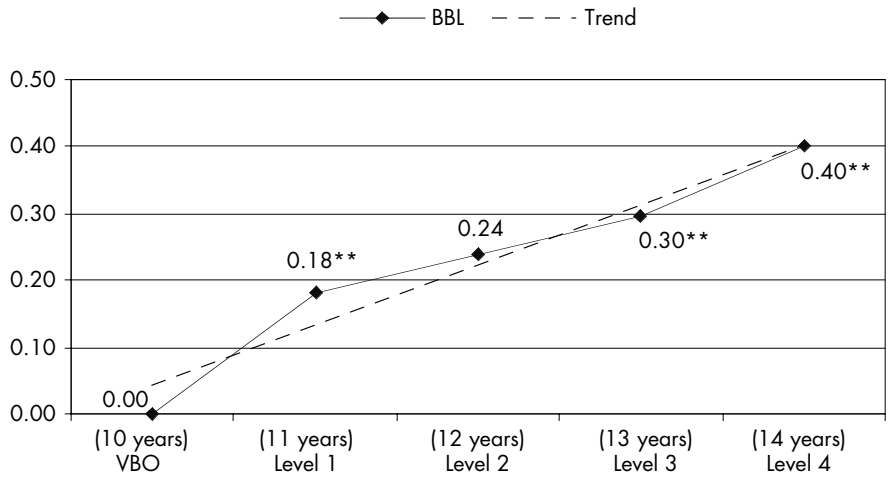
The discontinuities identified rule out an explanation based on institutional wage manipulation. The minimum youth wage system after all results in the differences at the bottom end of the scale being smaller rather than larger. The analyses however reveal that the largest discontinuities are to be found at the lower end of the wages structure, between VBO and level 1.

Figure 5.25 Gross hourly wage for BOL school-leavers, corrected



** = significant at the 1% level; * = significant at the 5% level.

Figure 5.26 Gross hourly wage for BBL school-leavers, corrected



** = significant at the 1% level; * = significant at the 5% level.

5.3.5 Conclusion

It is clear from the analysis of programme yields that in general these yields increase in accordance with the level of programmes, but that the increase is not the same for each year of additional schooling. Table 5.2 presents a survey of the most important indicators analysed in this section. The table shows the programme levels at which the largest relative improvement occurs. Figures 5.11 to 5.26 are taken as the point of departure.

It is clear from table 5.2 that for BOL programmes the boundary is to be set between VBO and level 1 in three instances (likelihood of participation in further studies, chance of finding work and gross hourly wage), between level 1 and level 2 in one instance (occupational level) and between levels 2 and 3 in two instances (chance of obtaining a permanent position and chance of obtaining a job in the individual's own sector of study). At the same time it needs to be noted that the difference between VBO and level 1 is not significant where the chance of finding work is concerned and that the difference between level 1 and level 2 where the chance of obtaining a job in the individual's own sector of study is concerned is of the same magnitude as the difference between level 1 and level 2. This means that when school-leavers follow a programme at level 3 instead of level 2, they gain a significant improvement in their labour market position principally in relation to their chances of obtaining a permanent job. As far as the other indicators are concerned, it appears that a level 2 programme offers a robust improvement and that in three of the five cases the boundary line can even be found at the level 1 programme level.

What does this mean for the basic qualification? If we take as a starting point that the basic qualification needs to generate a substantial improvement in yields with respect to the lower programme levels across the largest possible number of indicators, it can be concluded that BOL level 2 achieves this on five of the six indicators and that level 1 achieves the same on "only" three of the six indicators. This being so, the selected level 2 of BOL appears to be reasonably adequate for the basic qualification, except where an assumption might exist that the basic qualification needs to achieve improvement across *all* indicators. In that case the basic qualification would need to be positioned at level 3.

Table 5.2 **Establishing the boundary line for programmes that offer a relatively good start in the labour market in the case of six indicators**

	BOL	BBL
Chance of participation in further study	VBO - level 1**	VBO - level 1**
Chance of finding work	VBO - level 1	Level 1 - level 2
Chance of a permanent position	Level 2 - level 3**	VBO - level 1**
Occupational level	Level 1 - level 2**	Level 2 - level 3**
Chance of a job in own sector	Level 2 - level 3**	Level 1 - level 2*
Gross hourly wage	VBO - level 1*	VBO - level 1**

** = significant at the 1% level; * = significant at the 5% level.

For BBL, similarly, the most important jumps occur on the transition from VBO to level 1 in three instances (likelihood of participation in further study, chance of a permanent position and gross hourly wage), on transition from level 1 to level 2 in two instances (chance of finding work and chance of finding a job in the individual's own sector of study), and in the transition from level 2 to level 3 in one instance (occupational level). This means that the situation is comparable to that found within BOL. Programmes at BBL level 2 offer school-leavers relatively good prospects in the labour market where five of the six indicators are concerned. The same is true for only three of the six indicators in the case of level 1 programmes. Here similarly then, it can be concluded that programmes at BBL level 2 appear to be an adequate choice for the basic qualification, unless a requirement were to be set that the basic qualification needs to offer relatively strong improvement across all the indicators. Only in this latter case would the basic qualification need to be set at level 3.

5.4 The value of a basic qualification: differences between years and sectors

5.4.1 Introduction

The conclusion from the above analysis is that level 2 is a reasonably adequate choice for the basic qualification. This level 2 of the qualification structure can be said to generate relatively good yields in the labour market in relation to a large number of the external performance aspects. The question however is whether the conclusions of this study -undertaken in a period of economic boom- hold good in times when things are going less well for the labour mar-

ket. In order to investigate this, the above analysis was repeated, but this time the comparisons were made with a cohort of school-leavers entering the labour market in relatively more adverse circumstances. The earlier analysis was also extended by highlighting differences between programme sectors relative to the value of level 2 programmes (see also *School-leavers between education and the labour market (Schoolverlaters tussen onderwijs en arbeidsmarkt)*, ROA, 2003).
For this purpose school-leavers from reference years 1999 and 2000, the reference years used in the earlier analysis (cohorts leaving school in 1997-1998 and 1998-1999) were compared with school-leavers from reference years 2001 and 2002 (cohorts leaving school in 1999-2000 and 2000-2001). The differences between sectors were then studied by means of comparisons between the agriculture, technology, economic and healthcare sectors. For the purpose of the latter analysis, school-leaver numbers for reference years 1999, 2000, 2001 and 2002 were combined.
In contrast to the initial analysis, account was also taken of the distinction between school-leavers who completed programmes under the old qualifications structure and under the new qualifications structure (pre-WEB versus WEB).
The figures set out in the diagrams below show parameter estimates for the programme levels concerned, VBO serving as a reference category. The figures accordingly show the extent of the deviation with respect to VBO and can be interpreted as the effect of completing a BOL or BBL programme at level 1, 2, 3 or 4.

5.4.2 Differences between years

This section compares the value to school-leavers of programmes that offer relatively favourable labour market perspectives (1990-2000) with the value of programmes that offer relatively less favourable labour market perspectives (2001-2002). Important here is the question of the extent to which the boundary line has shifted and of what the labour market considers more valuable or less valuable at the point at which circumstances in the market change. In other words, whether the differences in yields between sequential programme levels come to show a significant deviation. This investigation was made for the 1990-2000 reference years and for the 2001-2002 reference years. In this way it was possible to indicate whether the increase of a single level (i.e. a single year of additional schooling) provided significantly more or significantly less in the labour market in terms of yield for school-leavers in 1999-2000 and/or in 2001-2002.

Chance of participation in further study

For BOL it emerges that the years 1999-2000 and 2001-2002 follow a similar pattern as regards participation in further studies. In both 1999-2000 and

2001-2002, the biggest jump is made at the transition from VBO to level 1. At the same time, VBO school-leavers participated in further studies more often than did level 1 school-leavers. It also emerges that level 2 and level 3 school-leavers elected to continue their studies more often than did level 1 school-leavers, but less often than VBO school-leavers.
Similarly, in BBL the largest increase in participation in further studies is made at the transition from VBO to level 1, whereas level 1 school-leavers elected to continue their studies more often than did VBO school-leavers. There were differences here between 1999-2000 and 2001-2002 however. The difference in participation in further studies between VBO and BBL level 1 was smaller in 2001-2002 than in 1999-2000.

Chance of finding work

What about the likelihood of school-leavers finding work? Noteworthy here in the case of BOL is that BOL level 1 school-leavers managed to find significantly less paid work than did VBO school-leavers in 2001-2002. At the same time it appeared that the likelihood of VBO school-leavers finding work was identical to that of BOL level 2 school-leavers. Only at the transition between level 2 and level 3 was there a big jump in the likelihood of finding work in 2001-2002. Seeing that the biggest jump in the likelihood of finding work during 1999-2000 took place at the transition from VBO to level 1 in the case of BOL, the boundary line for programmes that offer a relatively good chance of finding work shifted from level 1 in 1999-2000 to level 3 in 2001-2002. Similarly for BBL, the boundary line for programmes that offer a relatively good likelihood of finding work has shifted over recent years. The biggest jump in the likelihood of finding work took place at the transition from VBO to level 1 in 1999-2000. This was not the case in 2001-2002. The biggest improvement here took place at the transition from level 1 to level 2.

Chance of a permanent position

In the case of BOL, the chance of school-leavers finding a permanent position was slightly less for level 1 school-leavers in 2001-2002 than for VBO school-leavers. In 2001-2002, the largest improvement in the chance of finding a permanent position took place at the transition between level 2 and level 3. This was also the case in 1999-2000. This being so, programmes at BOL level 2 seem to resemble level 1 and VBO programmes more than they do level 3 or 4 programmes when it came to the likelihood of finding a permanent job.
For BBL, the likelihood of finding a permanent position in increased most strongly at the transition from VBO to level 1 in 1999-2000. By contrast the chance of school-leavers finding a permanent position is more or less the same for VBO and BBL level 1 school-leavers in 2001-2002. The biggest increase in the likelihood of obtaining a permanent position in 2001-2002 took place at the transition from level 2 to level 3.

Occupational level

If we take a look at the occupational level reflected by school-leaver jobs, it emerges that there were almost no differences as far as BOL was concerned between 1999-2000 and 2001-2002. The big improvement in occupational level took place on the transition from level 1 to level 2. This being so, there were distinct differences between BOL level 2 school-leavers and BOL level 1/VBO school-leavers.

For BBL, the differences between years occur particularly at level 1. Level 1 school-leavers obtained jobs at a higher occupational level than VBO school-leavers in 1999-2000. In 2001-2002 the occupational level of jobs obtained by level 1 school-leavers is slightly lower. In point of fact the biggest improvement in job occupational level for BBL took place at the transition from level 2 to level 3. This is true for both 1999-2000 and 2001-2002.

Chance of a job in own sector

There was also the question of whether school-leavers managed to find jobs that connected with their chosen course of study. In the case of BOL, the biggest improvement in the chance of school-leavers finding a job that connected with their individual course of study was identified at the transition from level 2 to level 3. For 2001-2002, the biggest improvement in the chance of school-leavers finding a job that connected with their individual course of study took place at the transition from level 1 to level 2. This is striking, since it shows a reverse shift in the boundary line from level 3 in 1999-2000 to level 2 in 2001-2002.

For BBL, the biggest improvement in the likelihood of school-leavers finding a job that connected with their individual course of study took place at the transition from level 1 to level 2 in 1999-2000. 1999-2000 differs from 2001-2002 in this respect. In 2001-2002 the likelihood of school-leavers finding a job that connected with their individual course of study increased almost equally level by level for BBL school-leavers, with the biggest improvement taking place at the transition from level 3 to level 4.

Gross hourly wage

Finally the wages paid to school-leavers. In the case of BOL, the biggest improvement in the gross hourly wage paid to school-leavers occurred on the transition from VBO to level 1. The biggest jump took place at this point in both 1999-2000 and 2001-2002.

For BBL, the biggest improvement in the gross hourly wage took place on transition from VBO to level 1 in 1999-2000. In 2001-2002 the gross hourly wage paid to school-leavers increased fairly uniformly across all programme levels. The biggest jump here took place from level 3 to level 4. Where BBL was concerned in short, the boundary line for programmes that offer relatively good reimbursement shifted from level 1 in 1999-2000 to level 4 in 2001-2002.

5.4.3 Differences between sectors

In this section the external yields of programmes are mutually compared on a sector by sector basis. Here once again the focus is on the position of the boundary line between what the labour market regards as more valuable or less valuable.

Chance of participation in further study

Where BOL is concerned, technical sector level 1 and level 2 school-leavers continue their studies nearly as often as those leaving the VBO technical programme. Similarly in the healthcare sector, level 2 school-leavers show few differences with VBO healthcare school-leavers. In the case of the technical and healthcare sectors, participation in further education courses only declines significantly from the point of transition between level 2 and level 3. For the economics sector by contrast, level 1 school-leavers are much less likely to continue their studies than VBO economics school-leavers. Level 2 school-leavers in the agriculture sector go on to further study less often than VBO agriculture school-leavers.
In the BBL technical and economic sectors, level 1 school-leavers go on to further study less often than do VBO school-leavers in these sectors. The decline in participation in further studies starting at the point of transition between VBO and level 1 is in fact larger for the economics sector than for the technical sector. Level 2 school-leavers in the agriculture and healthcare sectors also participate less often in further studies than do VBO school-leavers in these sectors.

Chance of finding work

Where it comes to the likelihood of finding work, the biggest jump in the technical sector occurs at the point of transition from level 1 to level 2. This does not apply to the economics sector. The biggest jump in the likelihood of finding work in this sector takes place at the point of transition from level 2 to level 3. Similarly in the healthcare and agriculture sectors, the biggest improvement in the likelihood of finding work occurs at the point of transition between level 2 and level 3.
For the BBL technical sector, the likelihood of finding work increases significantly at the point of transition from VBO to level 1. The biggest jump in the likelihood of finding work in the economics sector occurs at the point of transition between level 1 and level 2. For both the agriculture and healthcare sectors, the biggest improvement in the likelihood of finding work occurs at the point of transition between level 3 and level 4.

Chance of a permanent position

For the technical sector, the likelihood of level 1 school-leavers gaining a permanent job is below that of VBO school-leavers. The likelihood of obtaining a permanent position in the sector increases substantially at the point of transi-

tion from level 1 to level 2. Similarly for the agriculture sector, level 2 school-leavers are more likely to have a permanent position than are VBO agriculture school-leavers. In the economics and healthcare sectors, the biggest improvement in the likelihood of finding a permanent position occurs at the point of transition between level 2 and level 3.
The boundary line between programmes that offer a relatively good chance of finding a permanent position in the BBL economics sector lies at the point of transition between VBO and level 1. Where the agriculture sector is concerned, level 2 school-leavers have a relatively better likelihood of obtaining a permanent position than do VBO agriculture school-leavers. In the technical sector the biggest improvement in the likelihood of obtaining a permanent position occurs at the transition from level 2 to level 3. The equivalent improvement in the healthcare sector is at the point of transition between level 3 and level 4.

Occupational level

Within BOL, there are no significant differences between occupational level where VBO and level 1 school-leavers in the technical and economic sectors are concerned. The technical sector then begins to show a significant increase in occupational level at the point of transition between level 1 and level 2. For the economics sector, the biggest occupational level improvements occurs at the point of transition between level 2 and level 3. For the healthcare sector, the occupational level of level 2 school-leavers jobs is significantly higher than for VBO healthcare school-leavers. In the agriculture sector, by contrast, the biggest improvement in occupational level occurs at the point of transition between level 3 and level 4.
It also comes to light that for the BBL technical and economics sectors the biggest improvement in occupational level is made at the point of transition between level 2 and level 3. For the healthcare sector the occupational level for level 2 school-leavers is significantly higher than for VBO healthcare school-leavers. For the agriculture sector the boundary line for programmes that result in a relatively good occupational level lies at the point of transition between levels 3 and 4.

Chance of a job in own sector

How great is the likelihood of school-leavers finding a job within their individual course of study? In the technical and economic sectors, BOL level 1 scores no better than VBO where this is concerned. The economic sector then goes on to show a relatively large improvement in the likelihood of gaining a job in the individual's course of study at the point of transition between level 1 and level 2. This does not apply to the technical sector, where the biggest improvement occurs at the point of transition from level 2 to level 3. For the agriculture and healthcare sectors, the difference between VBO and level 2 is relatively large as regards the likelihood of obtaining a job that connects with the previous course of study. It is here that the biggest improvement takes

place in both of these sectors. Similarly for BBL, level 1 technical and economic school-leavers do no better than VBO school-leavers in these sectors. The technical sector goes on to show a relatively large increase at the point of transition between level 1 and level 2. It is also brought to light that level 2 school-leavers in the healthcare sector find a job that connects with their individual course of study relatively more frequently than VBO healthcare school-leavers. For the economics sector, by contrast, the likelihood of level 2 school-leavers gaining a job within their individual course of study is no different from that of VBO school-leavers in this sector. In the economics sector, the biggest improvement in the likelihood of school-leavers finding a job that connects with their individual course of study occurs at the point of transition between level 2 and level 3. This also applies to the agriculture sector.

Gross hourly wage

Finally the gross hourly wage per sector. In the technical and economics sectors, level 1 school-leavers have a significantly higher gross hourly wage than VBO school-leavers. Similarly for the healthcare sector, the point of transition between VBO and level 2 shows the biggest improvement in the gross hourly wage. In the case of agriculture level 2 school-leavers by contrast, the gross hourly wage is the same as for VBO school-leavers. The biggest jump in gross hourly wage in this sector takes place at the point of transition from level 3 to level 4.

Striking in the case of BBL is that the gross hourly wage in the sectors gradually increases in line with the increase in programme level. This being so, in the technical and economic sectors the largest increase in gross hourly wage takes place at the point of transition from VBO to level 1. Similarly in the agriculture and healthcare sectors, the biggest improvement in gross hourly wage takes place at the point of transition between VBO and level 2.

5.4.4 Conclusion and summary

The conclusion from the earlier analyses was that that the selected level 2 for the basic qualification was reasonably adequate. This section looked into the question of whether the conclusion from this earlier study -which was undertaken in a period of economic boom- is borne out in times when conditions are more difficult in the labour market. The above-mentioned analysis was repeated for this purpose, but in this case compared to a cohort of school-leavers that enter the labour market in relatively more difficult circumstances. A comparison of the external yield of level 2 programmes in the different educational sectors was also made.

Tables 5.3 and 5.4 provided a survey of the most significant results of comparisons made between years. With regard to BOL and BBL, these tables indicate the programme levels within which the largest relative improvement took

place in terms of labour market yields. Also indicated was whether this difference is significant between sequential levels.

Table 5.3 **Determining the boundary for BOL programmes that offer a relatively good start in the labour market over different years**

BOL	1999-2000	2001-2002
Participation in further study	VBO - level 1*	VBO - level 1*
Chance of finding work	VBO - level 1	Level 2 - level 3*
Chance of finding a permanent job	Level 2 - level 3*	Level 2 - level 3*
Occupational level	Level 1 - level 2*	Level 1 - level 2*
Chance of a job in own sector of study	Level 2 - level 3*	Level 1 - level 2*
Gross hourly wage	VBO - level 1*	VBO - level 1*

* = significant difference between sequential levels at the 5% level.

Table 5.3 shows that for BOL in 1999-2000, the boundary line for programmes that provide a relatively large improvement in yields lies between VBO and BOL level 1 in three instances (participation in further studies, likelihood of finding work and gross hourly wage), between BOL level 1 and BOL level 2 in one instance (occupational level) and between BOL level 2 and BOL level 3 in two instances (likelihood of finding a permanent position and likelihood of finding a job within the individual's own course of study). Only when it came to the likelihood of finding work was the difference between VBO and BOL level 1 insignificant. For BOL in 2001-2002, the boundary line for programmes that provide a relatively large improvement in yields lies between VBO and BOL level 1 in two instances (participation in further studies and gross hourly wage), between BOL level 1 and BOL level 2 in two instances (occupational level and likelihood of finding a job within the individual's own course of study), and between BOL level 2 and BOL level 3 again in two instances (likelihood of finding work and likelihood of obtaining a permanent job).

It emerges from table 5.4 that for BBL in 1999-2000, the largest improvement occurs at the point of transition between VBO and BBL level 1 in four instances, at the point of transition between BBL level 1 and level 2 in one instance and at the point of transition from BBL level 2 to BBL level 3 in one instance. In 2001-2002 the most significant improvements take place at the point of transition from VBO to BBL level 1 in one instance, at the point of transition between BBL level 1 to BBL level 2 in one instance, at the transition from BBL level 2 to BBL level 3 in two instances and at the transition between BBL level 3 and BBL level 4 in a further two instances.

Table 5.4 **Determining the boundary line for BBL programmes that offer a relatively good start in the labour market over different years**

BBL	1999-2000	2001-2002
Participation in further study	VBO - level 1*	VBO - level 1*
Chance of finding work	VBO - level 1	Level 1 - level 2*
Chance of a permanent job	VBO - level 1*	Level 2 - level 3*
Occupational level	Level 2 - level 3*	Level 2 - level 3*
Chance of a job in own sector of study	Level 1 - level 2*	Level 3 - level 4*
Gross hourly wage	VBO - level 1*	Level 3 - level 4*

* = significant difference between sequential levels at the 5% level.

What do these results mean for the value of the basic qualification? Where the assumption is adopted that a basic qualification must provide the greatest possible relative improvement with regard to the lower levels over the largest possible number of indicators, BOL level 2 programmes qualify as a basic qualification in 1999-2000. BOL level 2 programmes deliver a relatively large improvement in yields on four of the six indicators in 1999-2000 when compared to the lower programme levels. For some of the indicators, even BOL level 1 programmes deliver a relatively large improvement when compared to VBO. The same applies in 2001-2002. Similarly in 2001-2002, BOL level 2 programmes generate a relatively large improvement in yields when compared to lower-level programmes. Where BOL is concerned therefore, BOL level 2 programmes adequately qualify as a basic qualification for school-leavers in 2001-2002. It can be concluded that BOL level 2 programmes continue to distinguish themselves from lower-level programmes even when labour market circumstances are less favourable.

In the case of BBL, level 2 programmes delivered a relatively large improvement in yields on five of the six indicators when compared to lower-level programmes over 1999-2000. In 2001-2002 however, this applied to only two of the six indicators (participation in further study and likelihood of finding work). It can therefore be concluded that in the case of BBL the boundary line between programmes that offer a relatively good start in the labour market is less well-established than for BOL. This boundary line shifts towards programmes at a higher level during a period of economic decline.

Table 5.5 **Determining the boundary line for BOL programmes that offer a relatively good start in the labour market for each of the sectors****

BOL	Agriculture	Technical	Economics	Healthcare
Participation in further study	VBO - level 2*	Level 2 - level 3*	VBO - level 1*	Level 2 - level 3*
Chance of work	Level 2 - level 3*	Level 1 - level 2*	Level 2 - level 3	Level 2 - level 3*
Chance of permanent job	VBO - level 2	Level 1 - level 2*	Level 2 - level 3*	Level 2 - level 3*
Occupational level	Level 3 - level 4*	Level 1 - level 2*	Level 2 - level 3*	VBO - level 2*
Chance of job in own sector	VBO - level 2	Level 2 - level 3*	Level 1 - level 2*	VBO - level 2*
Gross hourly wage	Level 3 - level 4*	VBO - level 1	VBO - level 1*	VBO - level 2*

* = significant difference between sequential levels at the 5% level;
** = figures for level 1 are not available for the agriculture and healthcare sectors.

Tables 5.5 and 5.6 show the most significant results of the comparison between the sectors. Looking at the programme levels at which the largest relative improvement in yields takes place, it is clear that for the technical sector, BOL level 2 programmes deliver a relatively large improvement on four of the six indicators when compared to lower level programmes in this sector. This means that BOL level 2 programmes reasonably qualify as a basic qualification in the technical sector. This is true only to a slightly less extent for the agriculture, economics and healthcare sectors at BOL level 2. Programmes at BOL level 2 in these sectors deliver relatively good yields on three of the six indicators when compared to lower level programmes.

It is clear from table 5.6 that BBL level 2 programmes in the technical, economics and healthcare sectors deliver a substantial improvement in yields when compared to the lower level programmes in these sectors. BBL level 2 programmes are reasonably adequate as a basic qualification in these sectors. In the case of the agriculture sector, BBL level 2 programmes deliver a relative improvement when compared to the lower level programmes in this sector on three of the six indicators. This means that BBL level 2 programmes in the agriculture sector qualify as a basic qualification to a slightly less extent than BBL level 2 programmes in the other sectors.

Table 5.6 Determining the boundary line for BBL programmes that offer a relatively good start in the labour market for each of the sectors**

BBL	Agriculture	Technical	Economics	Healthcare
Participation in further study	VBO - level 2*	VBO - level 1*	VBO - level 1*	VBO - level 2*
Chance of work	Level 3 - level 4	VBO - level 1	Level 1 - level 2	Level 3 - level 4
Chance of permanent job	VBO - level 2*	Level 2 - level 3*	VBO - level 1*	Level 3 - level 4*
Occupational level	Level 3 - level 4*	Level 2 - level 3*	Level 2 - level 3*	VBO - level 2*
Chance of job in own sector	Level 2 - level 3*	Level 1 - level 2*	Level 2 - level 3*	VBO - level 2*
Gross hourly wage	VBO - level 2*	VBO - level 1*	VBO - level 1*	VBO - level 2*

* = significant difference between sequential levels at the 5% level;
** = figures for level 1 are not available for the agriculture and healthcare sectors.

So far, in determining the level of a basic qualification only the programme level attainments of school-leavers have been taken into account. The details given above show that the sectors differ slightly from each other with respect to the boundary lines of programmes that offer a relatively good start in the labour market. It would probably be a good idea to take into account programme sectors in which school-leavers have studied when determining programmes that offer an adequate basic qualification in the future.

5.5 The value of a basic qualification from an international perspective

5.5.1 Introduction

This section studies the value of the Dutch basic qualification from an international perspective. An empirical check is made for this purpose on the extent to which the external yield of ISCED 3C programmes differs between the Netherlands and certain other European countries, including France and the United Kingdom. Comparison with these countries is particularly

interesting, since programmes at the ISCED 3C short level in these two countries -in contrast to the situation in the Netherlands- are in fact regarded as level completion by the OECD. The points of reference for Dutch programmes at ISCED level 3C short are the foreign programmes at ISCED level 3C short, which means that comparison also took place with other programmes at ISCED 3 level (3A, 3B and 3C long) and with programmes at ISCED 2 level. The following two research questions were formulated:

1 *What is the value of Dutch ISCED 3C short programmes in terms of qualification for further study and opportunities in the labour market when compared to foreign ISCED 3C short programmes?*
2 *How does this value relate that of other programmes at ISCED 3 level (3A, 3B and 3C long) on the one hand, and programmes at ISCED level 2 on the other?*

Where application of these ISCED levels to the Dutch programmes is concerned, reference is made to table 5.7. This table shows how Dutch education system programmes are categorised in the ISCED 1997 (see Bernelot Moens (2000) for more details).

Table 5.7 Application of the ISCED 2-3 level to Dutch programmes

ISCED 1997 level	Description	Dutch equivalent
ISCED 2	Lower secondary education	HAVO (years 1-3); VWO (years 1-3); MAVO; VBO; BOL/BBL level 1
ISCED 3C short	Upper secondary education, not designed to lead to tertiary education, > 3 years	BOL/BBL level 2
ISCED 3C long	Upper secondary education, not designed to lead to tertiary education, > 3 years	BOL/BBL level 3
ISCED 3B	Upper secondary education, designed to give access to short, practically oriented tertiary education	N/A.
ISCED 3A	Upper secondary education, designed to give access to tertiary education	HAVO (years 4-5); VWO (years 4-6); BOL/BBL level 4

5.5.2 Research structure

Use was made of the European Union Labour Force Survey (EU LFS), compiled in 2000, in answering the research questions. This combined database -made available by Eurostat- contains data from part of the original, National Labour Force Surveys (LFS) -known in the Netherlands as the Enquête Beroepsbevolking (EBB)- held annually in the fifteen member states of the European Union. Only data relating to the Netherlands (NL), France (FR), the United Kingdom (UK), Greece (GR), Spain (ES) and Italy (IT) is drawn on for the purpose of the present analysis. The reason for this is that no distinction exists or is made at the ISCED 3C short programme level in the remaining member states. The section of the overall population aged 15-64 who have completed a programme at the ISCED 2-3 level is given. The number of individuals covered by this category is also given. In the Netherlands, for example, 5.9% of those aged 15-64 are in possession of a diploma at the ISCED 3C short level, corresponding to 628,000 individuals.

Table 5.8 **Section of the population with ISCED 2-3 level qualifications for each country, ages 15-64, percentages and absolute numbers (*1.000)**

Programme level	NL	FR	UK	GR	ES	IT
ISCED 2	24.2%	23.5%	18.5%	15.1%	25.7%	23.5%
	2.566	8.847	6.110	1.036	6.597	8.847
ISCED 3C short	5.9%	26.8%	16.9%	2.5%	0.2%	8.2%
	628	10.105	5.586	170	47	3.099
ISCED 3C long	16.6%	N/A	14.2%	6.8%	0.1%	2.0%
	1.768		4.698	466	28	756
ISCED 3B	N/A	1.6%	N/A	2.2%	5.7%	0.4%
		599		148	1.469	158
ISCED 3A	19.3%	11.5%	25.1%	26.1%	13.8%	26.1%
	2.055	4.337	8.317	1.790	3.551	9.826

Source: Eurostat, EU LFS 2000, own calculations.

In order to adequately determine the value of a basic qualification during the transition from school to work, the analysis limits itself to the 15-24 age group. The following aspects of the external yield of programmes are analysed:

- participation in further studies;
- participation in the labour force;
- paid work;
- permanent work;
- full-time work;
- occupational prestige.

In the case of participation in further studies the focus is on educational activities (both initial programmes and supplementary schooling) that took place in the four weeks prior to the date of the interview. This indicator therefore identifies those for whom the highest level of educational attainment achieved so far does not amount to terminal education. Participation in the labour force is determined on the basis of a slightly modified ILO definition (ILO, 1990). All persons who at the time of interview should strictly speaking belong to the labour force, but who are currently participating in an initial educational programme are excluded from the labour force statistics. The remaining indicators relate to the members of the labour force actually in employment. These are individuals who had performed at least one hour of paid work during the week of the interview and individuals who had not worked in that particular week but who did have a paid job from which they were on leave during the week concerned. The duration of the contract of employment was measured by making a distinction between permanent and temporary work. Permanent work related to a contract for an indefinite period of time. The contrast between full-time and part-time work was also analysed. This distinction was based on the interviewee's assessment and not on the actual number of hours worked each week. Finally, there was an assessment of the occupational prestige that had been gained. Occupations are categorised according to the ISCO'88 classification (ILO, 1990). The degree of occupational prestige was determined by use of the ISEI (Ganzeboom, De Graaf & Treiman, 1992; Ganzeboom & Treiman, 1996). Based on this widely used instrument that measures social status, scores are allocated to job titles (using three figure information from the ISCO'88 classification), according to a scale starting at 16 for the lowest status occupations and ending at 90 for the highest status occupations.

The empirical analysis begins with a description of the above aspects of the external yield of programmes in the various countries, focusing on absolute differences. Next to be determined are the differences in the external yield of programmes from country to country, with individual characteristics being taken into account. It is quite possible that differences encountered in the position of programmes are caused by variations between the structure of programmes with respect to age and gender. With this in mind, the differences between programmes were analysed again, but this time corrected for age and gender. The parameter estimates give logodds ratios for the programme levels concerned, the ISCED 3C short level serving as the reference category in all

cases. The figures show the deviation with respect to this programme level and can be interpreted as relative likelihoods. A logodds ratio greater than 0 for a particular programme level indicates a greater likelihood than that pertaining to the reference category (i.e. ISCED 3C short), a logodds ratio less than 0 indicates a smaller likelihood and a logodds of exactly 0 implies that the likelihood that relates to a particular programme level is identical to that of the reference category. In the analysis of occupational prestige achieved, the parameter estimates do not indicate logodds, but non-standardised regression coefficients instead. These can be interpreted as estimated differences between the programmes as to occupational prestige achieved.

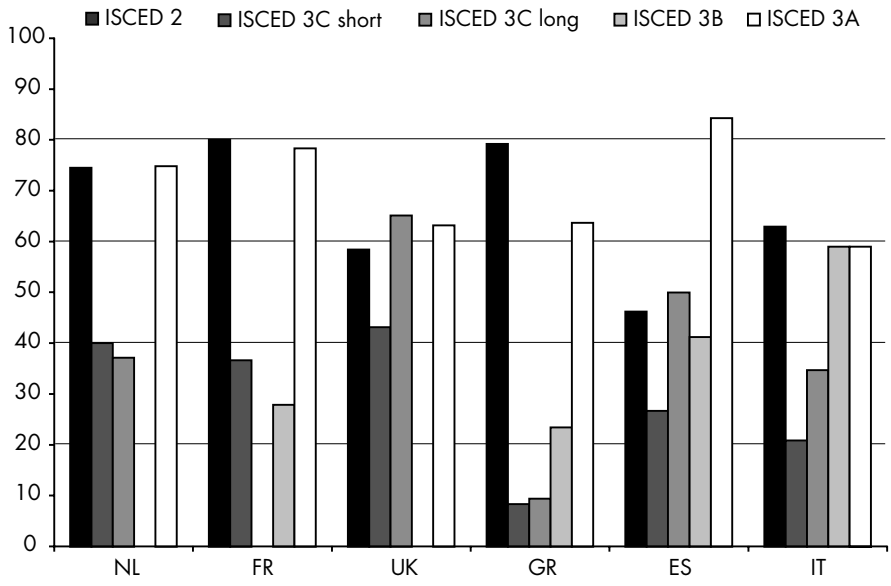
In order to assess the differences according to their statistical significance, the number of respondents in each country were put on a par and re-weighted to produce the equivalent of 5,000 respondents for each country. This avoided any distortion due to unequal sample sizes between the various countries.

5.5.3 Results

Participation in further education

It can be seen from figure 5.27 that there are significant differences between programme levels where it comes to going on to further studies.

Figure 5.27 **Likelihood of participation in further education, 15-24-year-olds, percentages**



Source: Eurostat, EU LFS 2000, own calculations.

A major section of the 15-24-year-old group with a diploma at the ISCED 2 level goes on to a further programme of study. This is a secondary vocational education programme in the majority of cases. There are one or two differences to be noted between countries however. In France, Greece and the Netherlands, the ISCED 2 level does not amount to terminal education for approximately 80% of young people, while the corresponding percentage in the United Kingdom and Italy is around 60%. In Spain, less than half of young people with a diploma at the ISCED 2 level go on to further study. Participation in further education among young people completing an ISCED 3C short programme appears to be much lower. The participation level in the Netherlands, France and the United Kingdom is approximately 40%. This share is considerably lower in the southern European countries involved, with Greece accounting for by far the lowest figure (8%). Participation in further education among young people completing an ISCED 3C long programme is significantly higher. The Netherlands is an exception to this rule, where the percentage of young people going on to further study is slightly lower in the case of ISCED 3C long programmes than for ISCED 3C short programmes. The difference is not large however (40% - 37% = 3%). Even participation in further education among young people completing an ISCED 3B programme is considerably higher than for the ISCED 3C short programmes. In Greece and Italy, participation in further study among young people completing an ISCED 3B programme is even higher than those completing an ISCED 3C long. Participation in further education among young people completing an ISCED 3A programme is at approximately the same level as for those completing a programme at the ISCED 2 level in all countries. It relates to access to higher education in this instance however.

Table 5.9 **Relative chance of participation in further education, 15-24-year-olds, logodds ratios [a]**

Programme level	NL	FR	UK	GR	ES	IT
ISCED 2	0.70**	0.76**##	0.41**	2.93**##	0.46	1.16**##
ISCED 3C short	0.00	0.00	0.00	0.00	0.00	0.00
ISCED 3C long	0.05	N/A	0.85**##	0.87	1.68	1.68**##
ISCED 3B	N/A.	0.39*	N/A.	1.55**	0.98	2.62**
ISCED 3A	1.52**	2.36**##	1.48**	3.55**##	3.25**##	2.63**##

[a] = corrected statistically for age and gender;

* = $p < 0.05$; ** = $p < 0.01$ (test of differences with respect to ISCED 3C short, per country);

= $p < 0.01$ (test of differences with respect to the Netherlands, per programme level).

Source: Eurostat, EU LEFS 2000, own calculations.

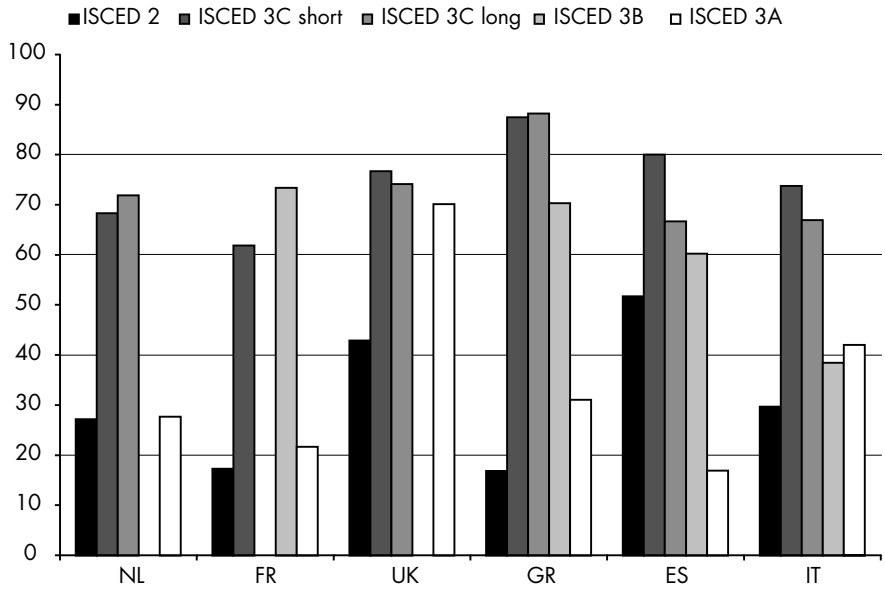
The above findings are analysed further in table 5.9 with the aid of multivariate analysis techniques. The results confirm the earlier differences found between programme levels and countries regarding the likelihood of participation in further education. In all of the countries, with the single exception of Spain, the relative likelihood of going on to further education among 15-24-year-olds completing a programme at the ISCED 2 level is significantly higher than for those who complete an ISCED 3C short programme. The fact that no significant effect has been found in the case of Spain is linked to the small number of individuals in that country who complete a programme at the ISCED 3C short level (the reference category). The estimated logodds ratio for the Netherlands is 0.70. The corresponding logodds ratio for Greece, Italy and France is significantly higher, which implies that the relative likelihood of going on to further study in the case of those completing an ISCED level 2 programme in these countries is greater than that for the Netherlands. When it comes to the ISCED 3C long, the number of young people completing a programme at this level going on to further study in the United Kingdom and Italy is higher than among those completing an ISCED 3C short programme. This also means that the estimated logodds ratio for both of these countries is significantly higher than for the Netherlands. One or two significant differences are also present when it comes to ISCED 3B programmes. In Italy, Greece and France, participation in further study among young people with a diploma at this programme level is higher than among their counterparts with a qualification at the ISCED 3C short level. The findings in relation to the ISCED 3A also show that participation in further study among those completing a programme at this level is significantly higher than among those at the ISCED 3C short level. This is true in all of the countries studied. It is also the case however that the estimated logodds ratios for Greece, Spain, Italy and France are significantly higher than the corresponding estimate for the Netherlands.

Labour force participation

Figure 5.28 shows the extent to which participation in the labour force among young people differs between programme levels and countries.

This indicator is more or less the mirror image of the rate of participation in further education. This being so, it emerges from figure 5.28 that that the degree of participation is lowest by far among those completing only the ISCED 2 level. There is considerable variation between countries however. Labour force participation is lowest in France and Greece, where it amounts to 17%. The highest rate of participation is in Spain, which has a share of 52%. Labour market participation by those completing an ISCED 3C short programme is significantly higher. This percentage is highest in Greece (88%) and lowest in France (62%). Labour force participation by individuals completing an ISCED 3C long programme differs little from that of those completing an ISCED 3C short programme.

Figure 5.28 **Likelihood of participation in the labour force, 15-24-year-olds, percentages**



Source: Eurostat, EU LFS 2000, own calculations.

The first participation rate is slightly higher in the Netherlands and Greece and lower in Spain, Italy and the United Kingdom. Labour market participation by those completing an ISCED 3B programme is considerably lower than participation by those completing an ISCED 3C short. France is an exception to this rule, where the percentage of those with an ISCED 3B is 11% higher (73% as compared to 62%). Labour market participation by individuals completing an ISCED 3A programme is considerably lower than for those completing ISCED 3C (short or long) or ISCED 3B programmes in nearly all countries. Only in the United Kingdom is labour market participation at a more or less comparable level.

The above findings are tested again in table 5.10, once more with the aid of multivariate analysis. As was to be expected based on figure 5.28, participation in the labour force among those completing a programme at the ISCED 2 level is significantly lower than among those with an ISCED 3C short. The effect is again insignificant where Spain is concerned. It also emerges from table 5.10 that the relatively low labour market participation by those completing an ISCED 2 programme in Greece is significantly lower than in the Netherlands.

Table 5.10 **Relative likelihood of participation in the labour force, 15-24-year-olds, logodds ratios [a]**

Programme level	NL	FR	UK	GR	ES	IT
ISCED 2	-1.04**	-1.00**	-1.41**	-2.51**#	-1.10	-1.29**
ISCED 3C short	0.00	0.00	0.00	0.00	0.00	0.00
ISCED 3C long	-0.03	N/A	-0.04	-0.33	-1.49	-0.94**
ISCED 3B	N/A	-0.17	N/A	-1.25	-1.47*	-2.02**
ISCED 3A	-1.76**	-2.17**	-0.48##	-3.01**	-3.73**#	-1.96**

[a] = corrected statistically for age and gender;

* = $p < 0.05$; ** = $p < 0.01$ (test of differences with respect to ISCED 3C short; per country);

= $p < 0.05$; ## = $p < 0.01$ (test of differences with respect to the Netherlands, per programme level).

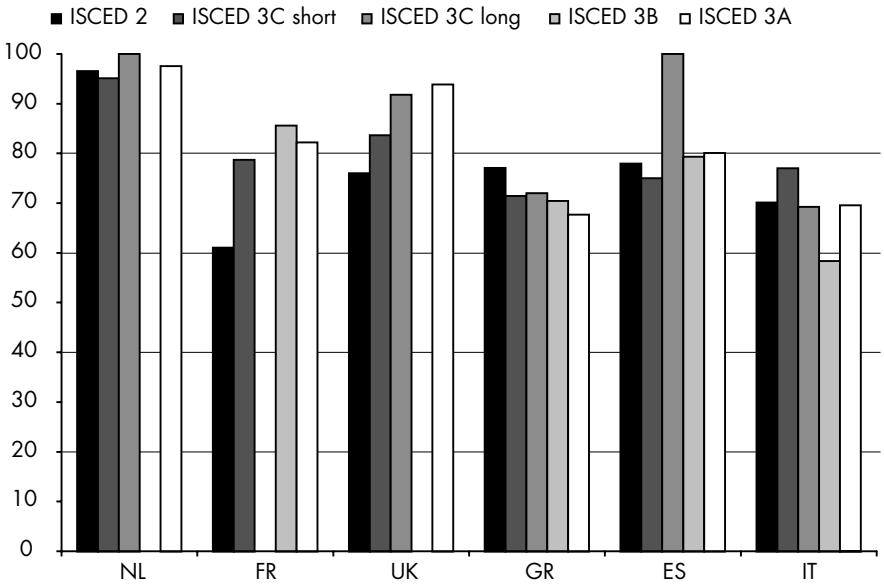
Source: Eurostat, EU LFS 2000, own calculations.

Table 5.10 further shows that in Italy the relative likelihood of labour force participation is significantly lower among those with a diploma at the ISCED 3C long level than for those completing an ISCED 3C short programme. The relevant logodds ratio is -0.94. Also in Italy, as in Spain, the relative likelihood of labour force participation is significantly lower among those with a diploma at the ISCED 3B level. Where the ISCED 3A level is concerned, finally, the labour market participation of young people completing a programme at this level is significantly lower among the countries studied than the labour market participation of those completing a programme at the ISCED 3C short level. The effect in the United Kingdom is not significant, although the logodds ratio points in the anticipated direction. The estimated logodds ratio for that country accordingly deviates significantly from the corresponding logodds ratio for the Netherlands. This is also the case for Spain, but the logodds ratio here is significantly higher than that of the Netherlands.

Paid work

Figure 5.29 shows the likelihood of finding paid work for young people who belong to the labour force, broken down according to programme level and countries.

Figure 5.29 Likelihood of finding paid work, 15-24-year-olds, percentages



Source: Eurostat, EU LFS 2000, own calculations.

The figures do not show an unequivocal picture where the differences between programme levels are concerned. In the United Kingdom for instance the likelihood of finding paid work is greater for those with a higher level of educational attainment. In Greece by contrast we see a negative correlation between the likelihood of finding paid work and the highest level of educational attainment. In the Netherlands there appears to be no connection whatever between the likelihood of finding paid work and the highest level of educational attainment. The main striking feature in Spain is that the likelihood of young people finding paid work after completing an ISCED 3C programme is considerably greater than for young people completing any other programme. Where differences that exist between countries in the likelihood of finding paid work are concerned, it emerged that the labour market situation in the Netherlands is the most favourable at the present time. Regardless of the level of educational attainment, individuals in the Netherlands had the highest chance of obtaining paid work. Taking the ISCED 3C as an example, 95% of individuals in the Netherlands who have completed this level are in paid work, as compared to 71% in Greece.

Table 5.11 **Relative likelihood of finding paid work, 15-24-year-olds, logodds ratios [a]**

Programme level	NL	FR	UK	GR	ES	IT
ISCED 2	0.17	-0.76**#	-0.48**	0.50**	0.36	-0.33**
ISCED 3C short	0.00	0.00	0.00	0.00	0.00	0.00
ISCED 3C long	2.12**	N/A	0.78**	0.26##	1.41	-0.46*##
ISCED 3B	N/A	0.41**	N/A	0.10	0.42	-0.91*
ISCED 3A	0.56	0.23*	1.08**	0.06	0.43	-0.44**##

[a] = corrected statistically for age and gender;

* = $p < 0.05$; ** = $p < 0.01$ (test of differences with respect to ISCED 3C short; per country);

= $p < 0.05$; ## = $p < 0.01$ (test of differences with respect to the Netherlands, per programme level).

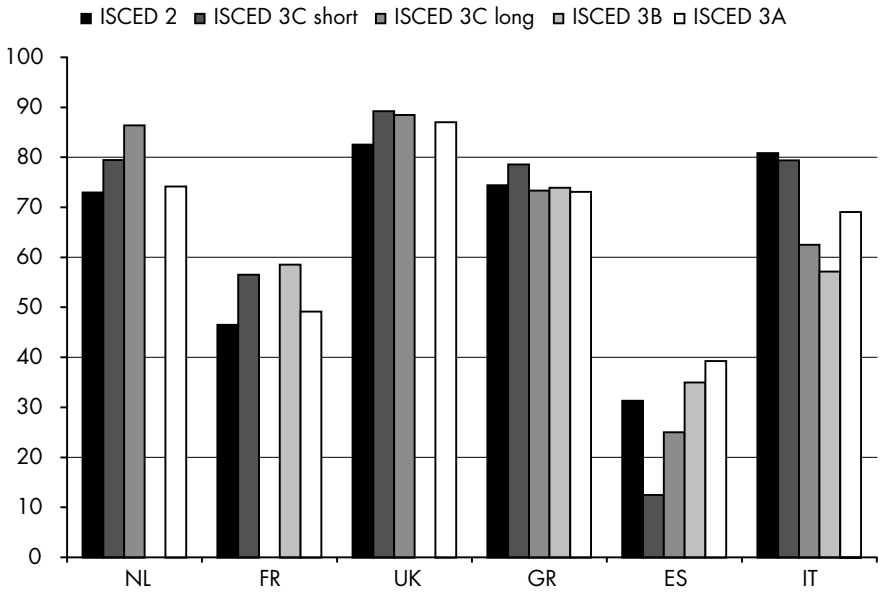
Source: Eurostat, EU LFS 2000, own calculations.

Table 5.11 shows that in France, the United Kingdom and Italy, the relative likelihood of individuals who have completed a programme at the ISCED 2 level finding paid work is significantly lower than for individuals completing a programme at the ISCED 3C short level. In Greece by contrast the relative likelihood of those with an ISCED level 2 finding paid work is significantly higher. Where the ISCED 3C long programmes are concerned, it emerges that in the Netherlands and the United Kingdom the relative likelihood of young people with this level of education finding paid work is significantly higher than for those with ISCED 3C short qualifications. However, the absolute differences are only small (see figure 5.29). In Italy by contrast, young people completing a programme at the ISCED 3C long level have a smaller relative likelihood of finding paid work than those with ISCED 3C short qualifications. This being so, the effect in Italy deviates significantly from the corresponding effect in the Netherlands. Where the ISCED 3B is concerned, in France the relative likelihood of those who have completed this level finding paid work is higher than for those with an ISCED 3C short. In Italy it is precisely the other way round. Finally, with regard to the ISCED 3A it needs to be pointed out that in the United Kingdom and France, the relative likelihood of young people who have completed this level finding paid work is significantly higher than for those completing an ISCED 3C short, while in Italy the relative likelihood of paid work for young people with an ISCED 3A is significantly lower. This relative likelihood of finding paid work moreover deviates significantly from the corresponding relative likelihood of doing so in the Netherlands.

Permanent work

Figure 5.30 looks into the likelihood of finding permanent work. The figure shows that -as in the case of the likelihood of finding paid work- there is no clear pattern to be observed between programme levels.

Figure 5.30 Chance of finding permanent work, 15-24-year-olds, percentages



Source: Eurostat, EU LFS 2000, own calculations.

In the Netherlands, young people completing a programme at the ISCED 3C long level have the best likelihood of finding a permanent job. In France, those with ISCED 3B are those who most often find a permanent position. In Spain it is young people with ISCED 3A who have the highest likelihood of finding a permanent job. In Italy it is young people with ISCED 2 qualifications. In the United Kingdom and Greece finally, young people completing a programme at ISCED 3C short level have the best chance of finding a permanent job. If we look at the differences between countries as to the likelihood of finding a permanent job, it is immediately apparent that young people in Spain -regardless of their educational level- have the least likelihood of finding paid work. Young people in the United Kingdom have the best likelihood of finding permanent jobs.

When account is taken of age and gender differences in the composition of the samples, it emerges that in both France and the United Kingdom the relative likelihood of finding permanent work for individuals who have completed a programme at the ISCED 2 level is significantly lower than for those completing a programme at the ISCED 3C short level (see table 5.12).

Table 5.12 **Relative likelihood of finding permanent work, 15-24-year-olds, logodds ratios [a]**

Programme level	NL	FR	UK	GR	ES	IT
ISCED 2	-0.06	-0.29**	-0.47**	-0.17	0.95*#	0.13
ISCED 3A	-0.34*	-0.36*	-0.38*	-0.33*	1.09*#	-0.72**
ISCED 3C short	0.00	0.00	0.00	0.00	0.00	0.00
ISCED 3C long	0.33*	N/A	-0.02	-0.38*##	0.15	-1.06**##
ISCED 3B	N/A	-0.01	N/A	-0.29	0.98*	-1.29**

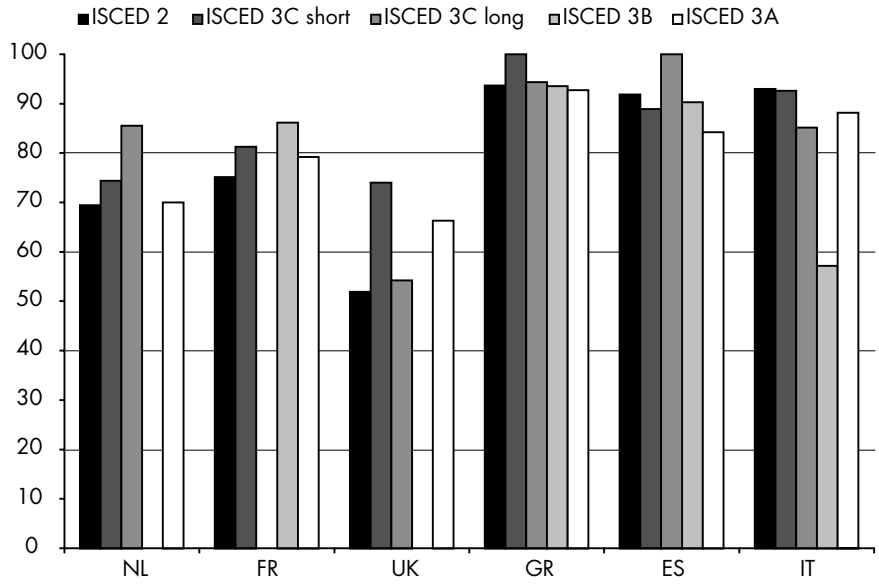
[a] = corrected statistically for age and gender;
* = $p < 0.05$; ** = $p < 0.01$ (test of differences with respect to ISCED 3C short; per country);
# = $p < 0.05$; ## = $p < 0.01$ (test of differences with respect to the Netherlands, per programme level).
Source: Eurostat, EU LFS 2000, own calculations.

This is in sharp contrast to Italy, where the relative likelihood of finding permanent work for those with ISCED 2 qualifications is greater. The estimated logodds ratio moreover deviates significantly from the corresponding estimate for the Netherlands. Where the ISCED 3C long is concerned it emerges that this programme level offers a higher relative likelihood of finding permanent work in the Netherlands, while the same programme level in Greece and Italy leads to a lower relative likelihood of finding permanent work. The effect found in these two countries accordingly differs significantly from the corresponding effect in the Netherlands. When it comes to the ISCED 3B, Spanish young people completing a programme at this level have a higher relative likelihood of finding permanent work than those completing a programme at the ISCED 3C short level. In Italy it is precisely the other way round. When it comes to the ISCED 3A, we find in all the countries studied that young people who have completed a programme at this level have a significantly lower relative likelihood of finding permanent work than their contemporaries with an ISCED 3C short. The single exception to this rule is Spain where, paradoxically, young people who have completed a programme at ISCED 3A level have a significantly higher relative likelihood of finding a permanent position.

Full-time work

Figure 5.31 shows the likelihood of obtaining full-time work.

Figure 5.31 **Likelihood of finding full-time work, 15-24-year-olds, percentages**



Source: Eurostat, EU LFS 2000, own calculations.

Once again, the task of systematising the differences between programme levels in the different countries is not an easy one. One pattern that can be discerned to some extent is that in a number of countries, young people completing programmes at the ISCED 2 or ISCED 3A level are slightly less often to be found working part-time than their contemporaries who have completed a different programme level. This may have to do with the fact that the latter group of students is the one that most often goes on to further study (see figure 5.27), and this stands in the way of a full-time job. Where the differences between the countries are concerned, it emerges that most of the full-time working found in the study occurs in the southern European countries of Greece, Spain and Italy. Approximately 90% of employed young people in these countries have a full-time job. In the Netherlands, France and the United Kingdom by contrast, the proportion of young people working full-time is considerably lower, at approximately 75%.

Table 5.13 **Relative likelihood of finding full-time work, 15-24-year-olds, logodds ratios [a]**

Programme level	NL	FR	UK	GR	ES	IT
ISCED 2	-0.04	-0.41**	-0.97**##	-0.70	0.48	-0.04
ISCED 3C short	0.00	0.00	0.00	0.00	0.00	0.00
ISCED 3C long	0.73**	N/A	-0.76**##	-0.62#	-0.00	-0.62**##
ISCED 3B	N/A	0.42**	N/A	-0.68	0.38	-2.12**
ISCED 3A	-0.13	0.20	-0.81**##	-0.75*	-0.19	-0.44**#

[a] = corrected statistically for age and gender;

* = $p < 0.05$; ** = $p < 0.01$ (test of differences with respect to ISCED 3C short; per country);

= $p < 0.05$; ## = $p < 0.01$ (test of differences with respect to the Netherlands, per programme level).

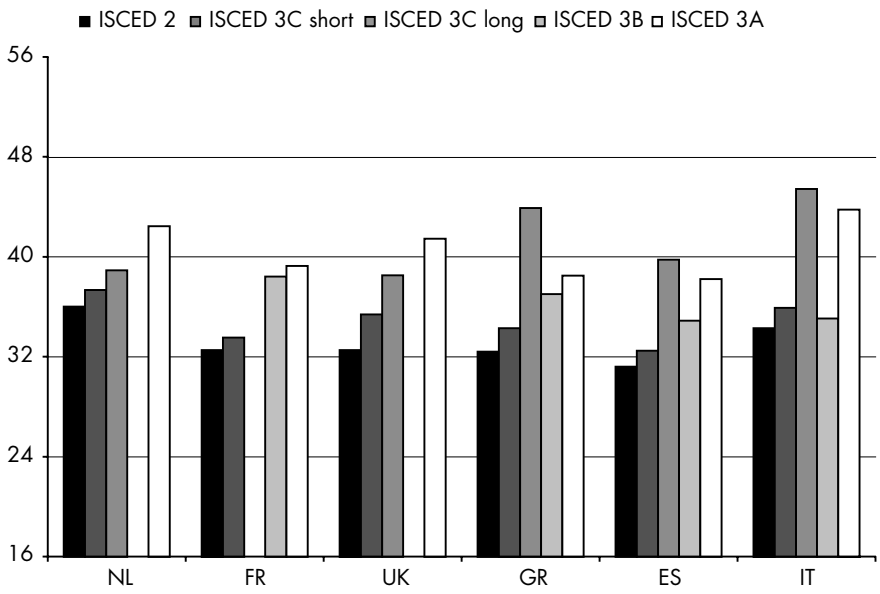
Source: Eurostat, EU LFS 2000, own calculations.

It emerges from table 5.13 that -when compared to the other aspects of the external use of programmes being studied here- only one or two significant differences exist between programme levels when it comes to the relative likelihood of finding full-time work. Firstly we find at the ISCED 2 level that individuals who have completed this programme level in France and the United Kingdom are significantly less often in full-time work than those completing a programme at ISCED 3C short level. The estimated logodds ratio for the United Kingdom thereby deviates significantly from that for the Netherlands. Where ISCED 3C long is concerned, young people who have completed this programme in the Netherlands are more often in full-time work than those completing an ISCED 3C short. In the United Kingdom and Italy by contrast it is precisely the opposite is that is true. When it comes to ISCED 3B, we note that young people who have completed this level in France have a relatively higher likelihood of finding full-time work than those completing an ISCED 3C short, while in Italy it is young people with an ISCED 3B who have a relatively lower likelihood of finding full-time work. Where the ISCED 3A is concerned finally, it emerges that in Greece, the United Kingdom and Italy, the relative likelihood of young people who have completed this programme level finding full-time work is lower than for those completing an ISCED 3C short. The logodds ratio for the last two countries named deviates significantly from that for the Netherlands.

Occupational prestige

The occupational prestige achieved is investigated as the final aspect of the external yield generated by programmes. Figure 5.32 presents the results of this analysis.

Figure 5.32 **Level of occupational prestige achieved, 15-24-year-olds, status points**



Source: Eurostat, EU LFS 2000, own calculations.

It is clear from the graph that in general terms the educational attainment level of individuals correlates positively with the degree of occupational prestige they achieve. The differences between programme levels in this respect are fairly large at the start of the occupational career. In the Netherlands for instance the average level of occupational prestige achieved by 15-24-year-olds who have completed an ISCED 2 programme amounts to 36 status points on a scale running from 16 to 90, while the average level of occupational prestige achieved by those completing an ISCED 3A programme amounts to 42 status points. There are also some striking differences between countries as regards programme levels. It emerges for instance that in the Netherlands young people in employment who have completed a programme at the ISCED 2 level achieve the highest level of occupational prestige - with, as mentioned, 36 status points, while those completing corresponding programmes in Spain achieve only the lowest level of occupational prestige (i.e. 31 status points). A similar difference applies to the ISCED 3C short. A programme of this type in the Netherlands delivers most in terms of occupational prestige (37 status points), while the same programme level in Spain delivers the least (32 status points). The highest level of occupational prestige for an ISCED 3C long programme is achieved in Italy; the lowest in the United Kingdom and the Netherlands. In the case of the ISCED 3B, this level is worth most in France

and least in Spain and Italy. Finally, an ISCED 3A programme in Italy delivers most in terms of occupational prestige, the same programme delivers the least occupational prestige in Greece and Spain.

Table 5.14 **Difference in occupational prestige achieved, 15-25-year-olds, status points [a]**

Programme level	NL	FR	UK	GR	ES	IT
ISCED 2	-0.56	-0.84*	-2.61**#	-2.09**	-1.22	-1.60**
ISCED 3C short	0.00	0.00	0.00	0.00	0.00	0.00
ISCED 3C long	1.49*	N/A	3.08**#	7.34**##	7.20*	9.45**##
ISCED 3B	N/A	4.76**	N/A	1.63*	2.04	-1.11
ISCED 3A	5.04**	5.27**	5.42**	2.75**#	5.21**	7.83**##

[a] = corrected statistically for age and gender;
* = $p < 0.05$; ** = $p < 0.01$ (test of differences with respect to ISCED 3C short; per country);
# = $p < 0.05$; ## = $p < 0.01$ (test of differences with respect to the Netherlands, per programme level).
Source: Eurostat, EU LFS 2000, own calculations.

To conclude, table 5.14 reveals the differences in levels of occupational prestige achieved between programme levels and countries, following correction for differences in age and gender. It emerges from these results that the level of occupational prestige that attaches to individuals completing a programme at a maximum level of ISCED 2 in all of the countries -except for the Netherlands and Spain- is significantly lower than for those completing a programme at the ISCED 3C short level. In the case of the United Kingdom the estimated difference is - 2.61 status points. This being the case, the difference is significantly higher than the estimated difference in the Netherlands. Individuals who have completed an ISCED 3C long programme by contrast achieve a significantly higher level of occupational prestige than those completing an ISCED 3C short. This is true for all countries that offer this programme level. The estimated difference in the Netherlands is 1.49 status points. The difference is significantly higher however in Italy, Greece and the United Kingdom. Differences between ISCED 3B and ISCED 3C short are only significant for France and Greece. Employed young people in France who have completed a programme at the ISCED 3B gain nearly five status points more than those completing an ISCED 3C short. Where the ISCED 3A is concerned, individuals who have completed this programme level achieve a higher level of occupational prestige than individuals completing an ISCED 3C short in all of the countries studied. The estimated difference in Italy is significantly higher than in the Netherlands.

5.5.4 Summary and conclusion

In order to determine the value of the Dutch basic qualification, an international comparison of the (labour market) position of young people who have completed a programme at the ISCED 3C short level has been undertaken in this section. An empirically based investigation has been made of the extent to which the external yield generated by ISCED 3C short programmes differs between the Netherlands and some other European countries, including France and the United Kingdom. Data from the 2000 European Union Labour Force Survey (EU LFS) was used for this purpose. This comparison produced a number of interesting findings, the results of which are summarised in table 5.15. The table shows the programme levels between which a relatively robust improvement occurs in the diverse aspects associated with the external yields generated. The analysis results from tables 5.9 to 5.14 inclusive were adopted as the basic premise for this analysis. Question marks appear in the columns where inconsistent patterns emerge (e.g. relative deterioration in labour market position associated with an increase in programme level).

It can be concluded from table 5.15 that when it comes to the question of the programme levels that lead to the labour market, most of the differences occur between the ISCED 2 and ISCED 3C short levels. This holds true first of all for participation in further education. ISCED 2 does not constitute terminal education in the countries studied, while ISCED 3C short on the other hand can (largely) be regarded as amounting to terminal education. It is likely that the United Kingdom occupies an exceptional position where this is concerned. The boundary line there lies more between ISCED 3C short and ISCED 3C long. On the other hand, participation in the labour force among young people completing an ISCED 2 in the United Kingdom is a great deal lower than for those completing an ISCED 3C short level programme. This applies equally well to all the other countries studied.

When it comes to occupational prestige achieved, the largest differences are to be found between the ISCED 3C short and ISCED 3C long levels. Young people completing a programme at the ISCED 3C short level achieved lower occupational prestige than those completing a programme at the ISCED 3C long level. Although in most of the countries -with the exception of the Netherlands and Spain- there is a difference in the level of occupational prestige achieved between young people completing ISCED 2 and ISCED 3C short, this difference -with the probable exception of the United Kingdom- is significantly less than the difference between the ISCED 3C short and ISCED 3C long levels. In the case of France, -where there is no ISCED 3C long- the corresponding distinction takes place between the ISCED 3C short and ISCED 3B levels.

Table 5.15 **Determining the boundary line at which relatively robust improvements occur, based on the six external yield aspects studied, per country**

	NL	FR	UK	GR	ES	IT
Participation in further education	2 vs. 3C short**	2 vs. 3C short**	3C short vs. 3C long**	2 vs. 3C short**	3C short vs. 3A	3C short vs. 3C long**
Participation in the labour force	2 vs. 3C short**	2 vs. 3C short**	2 vs. 3C short**	2 vs. 3C short**	3C short vs. 3A	2 vs. 3C short**
Paid work	3C short vs. 3C long**	2 vs. 3C short**	3C short vs. 3C long**	?	3C short vs. 3C long	?
Permanent work	3C short vs. 3C long*	2 vs. 3C short**	2 vs. 3C short**	?	?	?
Full-time work	3C short vs. 3C long**	?	2 vs. 3C short**	?	?	?
Occupational prestige	3C short vs. 3C long*	3C short vs. 3B**	3C short vs. 3C long**	3C short vs. 3C long**	3C short vs. 3C long*	3C short vs. 3C long**

* = $p < 0.05$; ** = $p < 0.01$; ? = differences between programme levels inconsistent or too negligible.
Source: Eurostat, EU LFS 2000, own calculations.

As regards the other aspects of the external yield of programmes (chances of paid work, permanent work and full-time work), there are different outcomes for each country. In both France and the United Kingdom there is a relatively strong improvement between ISCED 2 and ISCED 3C short. For the Netherlands by contrast it quite clearly emerges that the boundary line lies between ISCED 3C short and ISCED 3C long. Programmes at the ISCED 3C level in the Netherlands produce relatively less favourable likelihoods of obtaining paid work, permanent work and full-time work than do programmes at the ISCED 3C long level. It is pointed out however that seen in absolute terms, the chances of Dutch school-leavers at ISCED 2 and ISCED 3C short level finding paid work are considerably higher than for those who complete higher-level programmes abroad. The pattern for the remaining countries (Italy, Greece and Spain) is inconsistent to the point where no clear line of demarcation can be drawn.

What can be concluded as regards the value of the Dutch basic qualification from an international perspective based on these findings? The results presented in this chapter show that when it comes to preparation for the labour market, the largest differences occur between the ISCED 2 and ISCED 3C short programme levels. This being so, the Netherlands appears to be marching nicely in step with other European countries. When we look at occupational prestige, the biggest differences manifest themselves between the ISCED 3C short and ISCED 3C long levels. Here similarly, the Dutch situation does not diverge significantly from that of other countries. When it comes to the likelihood of finding paid work, permanent work and full-time work however, it turns out that even as regards these labour market outcomes, the boundary line for the Netherlands in particular falls between ISCED 3C short and ISCED 3C long. In the Dutch situation in other words, a programme at the ISCED 3C short level certainly prepares young people for the labour market, though whether it actually renders them ready to enter the labour market adequately well-equipped is a question that remains open. Whatever the case may be, the relative improvement to be gained by following a programme at the ISCED 3C short level in the Netherlands is slightly disappointing.

This statement appears to be at variance with the findings from the previous section. In the final section (5.6) we will give extensive attention to the differences between the types of analyses used and their interpretation. For the moment though we content ourselves with two marginal notes on the current analysis. Firstly, it is possible that specific findings for the Netherlands have to do with the fact that in this country a relatively large number of school-leavers who have completed a programme at the (ISCED 2 or) ISCED 3C short level are still following a modern apprenticeship programme, which means that they are more likely to be working part time and have only a temporary contract of employment for this reason. An attempt has been made to take this into account in the analysis by excluding from the labour force statistics at the time of interview all persons who ought to belong to it strictly speaking, but are currently participating in an initial programme. It is doubtful however whether the content details used in the modern apprenticeship system can be regarded as qualifying as initial education in all cases. Secondly, the absolute figures show a more positive picture as regards the Netherlands. Thanks to the current high level of economic activity in the Netherlands for instance, the level of opportunity open to young people completing a programme at the ISCED 3C short level is higher than in other countries. Currently also, they achieve the highest level of occupational prestige as compared to their peers in the other countries.

5.6 Conclusions and comments

5.6.1 The main findings

An important policy aim of the Dutch government is to have as many young people as possible achieve a so-called basic qualification, i.e. complete a programme of education at a minimum of level 2 of the qualifications structure. The assumption behind this aim is that this educational level is the minimum necessary in order to function well in the labour market. Although this constitutes one of the most important objectives in educational policy aimed at school-leavers in lower secondary education, relatively little is known about the issues at stake in an empirical sense. No systematic records are kept of how many young people in a given cohort of school-leavers actually obtain a basic qualification for instance, and little is known regarding the external yield of the basic qualification as compared to other programme levels.

In this report the external yields of programmes at level 2 of BOL and BBL are compared to programmes that in terms of level are immediately below them (level 1 and VBO) and immediately above them (levels 3 and 4). An international comparison is also made, looking into the question of the position of programmes at ISCED 3C short level as compared to ISCED 2 level on the one hand and the other programmes at level 3 (3A, 3B and 3C long) on the other hand.

The analysis focuses on the question of whether the relationship between programme level and yields proceeds in a monotonous way, as some theories predict, or whether there are particular discontinuities. This distinction is important, since it may contribute to answering the question of what programme level ought to bear the title of basic qualification. If the relationship between number of years of schooling and yields proceeds on a monotonous basis, social considerations will need to be decisive in the question of the programme level that must be regarded as the minimum in order to allow individuals to function well in the labour market. These considerations cannot be derived from the empirics directly. If however the relationship proceeds on a discontinuous basis, a possible boundary line could be set at the programme level where the relative improvement due to a single year of additional schooling is greatest.* Segmentation theories and institutional theories in particular offer explanations pointing to the possible existence of such discontinuities. A consequence of the minimum youth wage for instance might be that school-leavers need to have a minimum level of education in order to guarantee a level of productivity that corresponds to this minimum wage. Another

* This of course is without prejudice to the idea that the basic qualification might come to be defined at a different level based on social considerations.

possible cause for discontinuity may lie in the segmentation of the labour market on the basis of qualification requirements. From the point of view of the segmented labour market a minimum qualification level is necessary in order to gain access to the specific trade or professional submarkets. School-leavers not in possession of this minimum qualification have no option but to take recourse to secondary segment jobs: low-level jobs with poor primary and secondary working conditions.

Two kinds of data sources were used for the analysis: the ROA's School-leaver questionnaires and the European Union Labour Force Surveys (EU LFS). The first of these data sources made it possible to survey the labour market situation of school-leavers at a very detailed level. The great advantage here lay particularly in the options the programme classifications used in the school-leaver study offered for the precise operationalising of policy relevant levels and the number of indicators available for mapping out the labour market position of school-leavers. Sampling arrangements moreover were geared directly to an analysis of the position of school-leavers. The advantage of the second data source was the international benchmarking option it offered.

The main conclusions from both of these analyses can be summarised as follows:

1 In the Dutch situation there is an important distinction between VBO on the one hand and BOL/BBL level 1 on the other hand when it comes to the question of what must be regarded as terminal education. We see a comparable distinction in the EU countries studied, where ISCED 2 is not regarded as terminal education but ISCED 3C short is (to an important extent). Moreover, participation in the labour force is much higher in the case of those who have completed ISCED 3C short level programmes than for ISCED 2. In this sense it can be said that programmes at level 1 and the ISCED 3C short programmes (also) prepare participants for the labour market, though that is not to say that they prepare participants adequately for entry to this market.

2 When it comes to the likelihood of finding paid work, permanent work and full-time work, there are differences in outcomes between the two types of analysis. If we concentrate on the international comparison we are struck first of all by the wide divergences in outcomes between countries. In the case of France and the United Kingdom, it seems that the boundary line must be drawn between the ISCED 2 level and ISCED 3C short, though it needs to be pointed out here that evidence for this is given for only two of the three indicators. In the case of the Netherlands, all three indicators point to a demarcation between the ISCED 3C short level and ISCED 3C long. The pattern in the other countries is inconsistent to the point that no clear line of demarcation can be found.

3 Analysis of the Dutch school-leavers data shows that the biggest differences between programme levels when it comes to the likelihood of finding paid work occur between VBO and level 1 in the case of BOL and between level 1 and level 2 for the BBL. The differences are not significant in either case however. Significant differences are to be found though when we consider the likelihood of obtaining a permanent contract of employment. The biggest distinction here for BOL programmes lies between levels 2 and 3 and for BBL programmes between VBO and level 1.

4 The school-leavers data also lends itself to being used for analyses in which the qualitative connection between educational programme and occupation has central focus. This kind of analysis concerns itself with the occupational level of the jobs gained and with the connection the job bears to school-leavers' individual courses of study. The picture obtained here is a fairly mixed one. Where it comes to job occupational levels, the boundary line for BOL lies between levels 1 and 2, but for BBL between levels 2 and 3. The position is exactly the reverse for the alignment between job and individual course of study, although it needs to be noted that the difference between levels 2 and 3 is just as great as between levels 1 and 2 (albeit this last distinction is not significant).

5 When it comes to remuneration, it emerges that Dutch school-leavers achieve the greatest relative improvement on transition from VBO to level 1. This applies to both BOL and BBL. Comparable details are not available from the international data.

6 In the analysis of occupational prestige acquired, the countries studied show a clear difference between programmes at the ISCED 3C short and 3C long levels. Young people completing a programme at the latter level achieve a higher level of occupational prestige on average.

7 The analyses were carried out for the reference years 1999 and 2000, a period of economic boom. In order to check whether the conclusions stand up under relatively less favourable economic circumstances, the analyses were repeated for the reference years 2001 and 2002. For BOL level 2 programmes it was found that these continued to function as a reasonably adequate basic qualification for school-leavers. In the case of the BBL programmes it was found that the boundary line between programmes that offer a relatively good start in the labour market had shifted towards programmes at a higher level.

8 The sector differences among level 2 programmes are not large. The BOL technical programmes at level 2 offer slightly better perspectives than the corresponding programmes in the other sectors. The BBL level

2 agriculture programme offers poorer perspectives than the corresponding programmes in the other sectors.

5.6.2 Differences in outcomes

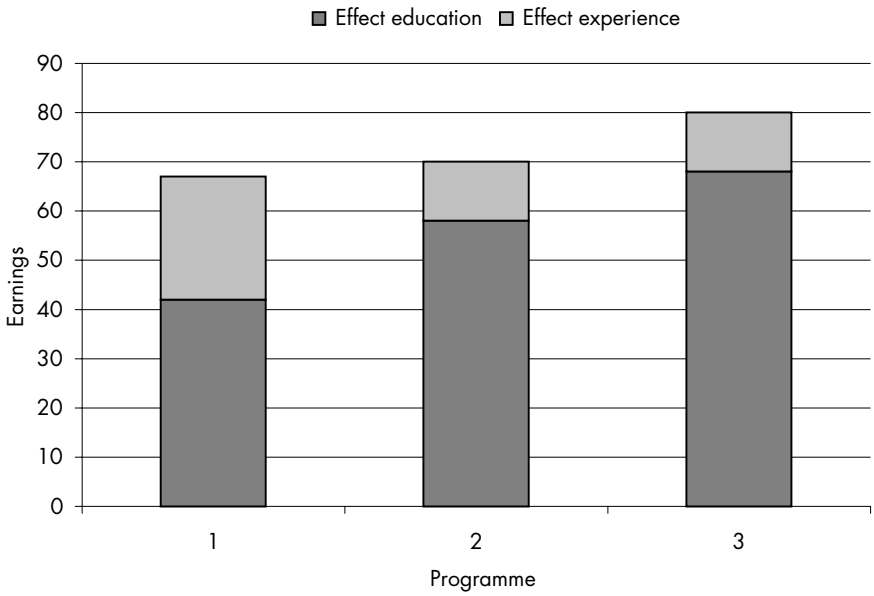
One problematic fact is that both of the analyses point partly in different directions. If we concentrate on the EU LFS data, we are forced to conclude that for the Netherlands the biggest relative improvement is to be found in the transition from ISCED 3C short to ISCED 3C long. If we look at the Dutch school-leavers data however, it appears that the biggest relative improvement is to be found at the transition from level 2 (i.e. ISCED 2) to level 3 (i.e. ISCED 3C short) of the qualifications structure. How can these differences be explained? In outline there are three important causes: differences in the nature of the indicators, differences in reference year and differences in sample design.

The Dutch school-leavers data comprises more and better indicators for the labour market position of school-leavers than the EU LFS data. In particular, indicators such as likelihood of finding paid work, occupational level of the job, alignment with individual course of study and pay qualify as good indicators for the value of a programme (ROA, 2002). It is known that school-leavers work full-time as a rule, except when following a programme in the modern apprenticeship system. In that case they work part time by definition (ROA, 2002). It is also known that temporary appointments need not always indicate an inferior labour market position. Jobs that are combined with an educational programme (e.g. modern apprenticeships, research assistants, trainees), frequently have a temporary character, i.e. for the duration of the programme. Occupational prestige on the other hand does provide a good indication of the general social evaluation of occupations, though this evaluation need not correspond one-to-one with an occupation's economic appraisal in the labour market. It is therefore hardly surprising that the largest distinction is found between levels 3C short and 3C long, given that this point also marks the boundary line between typical blue and white collar occupations. There is no reason to imply from this however that a programme aimed at skilled blue collar groups is deficient in producing a good basic qualification. The second cause of the difference between the two types of analyses may lie in the reference year discrepancy. The school-leaver data refers to the surveys carried out in 1999 and 2000. The sample consists of school-leavers who have already been in the labour market for approximately eighteen months. Thus, the data covers a period ranging from roughly 1998 to 2000. The EU LFS data relates to the 2000 survey. The sample taken from the analysis consists of school-leavers aged 15 to 24. Depending on the programme studied, these could have gained work experience of up to a maximum of eight years. This being so, the analysis covers a period that runs roughly from 1992 to 2000,

with an emphasis on the second half of this period. The period concerned experienced strong dynamism in labour market conditions for school-leavers, characterised by a dramatic increase in unemployment up to 1996, followed by a sharp fall up to 2000. It is possible that the analysis relating to the school-leaver data provides too rosy a picture, particularly as regards the least well-trained. It might be that in a period of economic decline, the line of demarcation between relatively well performing and relatively poorly performing programmes shifts upwards. This is precisely what would be predicted by the screening theory (see section 5.2). The analyses that make use of the EU LFS data seem to be pointing in this direction, but these differences could also be explained as due to differences in the sample design (see below). Analyses conducted later for the 2001 and 2002 reference years do not show this trait in the case of BOL level 2 programmes, though they do to a certain extent for the BBL level 2 programmes.

As indicated above, the difference between the two analyses can also be explained by differences in sample design. In the one case a cohort of school-leavers is analysed that shows differences in level of educational attainment and age but not in work experience. An attempt was made to estimate the "pure" educational effect by correcting for age. In the case of the other analysis an age group is analysed (15-24-year-olds), that differs not only in level of educational attainment but also -by definition- in work experience. The least well educated in this body of school-leavers are the ones with the most work experience. They compensate for part of the deficit they suffer with respect to those with better qualifications in the group by this extra work experience. It can be graphically represented in the following way.
Figure 5.33 gives a hypothetical example of the effects of programmes 1, 2 and 3 on earnings. It is assumed that school-leavers completing programme 1 have more work experience than school-leavers completing programmes 2 and 3. Without correction for work experience, it would appear that the biggest relative improvement is to be found on transition from programme 2 to programme 3. If we look at the differences that arise once correction for work experience has been made however, it emerges that the biggest improvement is to be achieved at the transition of programme 1 to programme 2. An effect such as this also appears to occur in the analysis based on the EU LFS data. It is true that here an attempt was made to correct for age (20-24 versus 15-19) by introducing a dummy variable into the multivariate analysis, though perhaps this was insufficiently precise. This is indicated by the fact that a comparable analysis of the entire labour force (see Appendix II) provides a different picture. The advantage of an analysis that includes the whole of the labour force is that the effect of work experience on the different programmes is broadly speaking identical in magnitude. What emerges from this analysis though is that when all is said and done, the boundary line still needs to be placed between ISCED 2 and ISCED 3C short in the majority of cases.

Figure 5.33 **Hypothetical effects of programmes and work experience on earnings**



5.6.3 Conclusions

As stated earlier, the policy of having as many young people as possible complete a programme at a level that in the Dutch context is designated by the term basic qualification is based on social considerations as well as on empiric grounds.
Nothing is said regarding social considerations in this report. On empirical grounds however we can conclude that on the basis of the Dutch school-leavers analysis, the findings for a large number of the indicators -though not all- show that level 2 of the qualifications structure generates relatively good yields in the labour market. It even emerges that for a number of the indicators, a programme at level 1 already provides a significant improvement with respect to VBO. This being the case, the selection of level 2 as the basic qualification level appears to be reasonably adequate.

An important reservation needs to be made regarding this conclusion however. The central analyses presented in this chapter relate to the labour market situation for Dutch school-leavers at the end of the years 1999 and 2000, a period in which the labour market was under extreme pressure. As a result of this pressure there was a shift in the evaluation of programmes and in the boundary line separating what the labour market valued and what it did not

value. It is quite possible that this boundary line has the habit of shifting towards higher level programmes in periods of economic decline. This is what is predicted by the queue theory (Thurow, 1975). A repeat of the analysis for the reference years 2000 and 2002 confirmed this picture to some extent for BBL programmes at level 2, although it certainly did not do the same for BOL programmes.
The outcomes in the international study give occasion for regarding programmes at the ISCED 3C short level as constituting terminal education in any case and as having an important allocation function towards the labour market. Whether these programmes also adequately equip school-leavers to function well in the labour market is an open question however. Where France and the United Kingdom are concerned the answer to this question appears to be cautiously affirmative. For the Netherlands the answer appears to be negative rather than positive, though there are some reasons to doubt this. Apart from that, a danger seems to lurk in the use of homogenous age groups if it is not possible to take account of work experience. In the absence of a good indicator for this, it ought to be possible to work using an approximating approach to an age relevant cohort of school-leavers. A method of this kind is used in Müller et al. (2003). The study construes an age relevant age delineation for each ISCED level from country to country based on the usual school leaving age for that particular ISCED level in the country concerned.

The theoretical implications of the analyses seem to point in the direction of the segmentation theory. The discontinuities actually encountered preclude an explanation based on institutional wage moulding. The consequence of the minimum youth wage system after all is that the differences at the bottom end become smaller instead of larger. The analyses show however that the biggest discontinuities are to be found at the bottom of the wage structure between VBO and level 1. The findings on the other hand are in line with what would be predicted based on the segmentation theory. Those leaving VBO and partly also level 1 of secondary vocational education are largely assigned to jobs in the secondary segment for which few if any specific skills are needed. This manifests itself in fewer chances of finding work, less job security and poorer working conditions. Programmes at level 2 and above offer school-leavers access to jobs in occupation specific submarkets and the internal labour markets. This goes hand-in-hand with higher pay, more job security, and in greater importance being attached to the level and direction of the programme studied.

6 The basic qualification and CBS classifications

6.1 Introduction

The discussion regarding the value of Dutch basic vocational training or the basic qualification found its point of inception in the more detailed provision of Dutch educational data to the OECD in accordance with the stipulations of the OECD manual on the introduction of the ISCED'97. The rules set out in the manual were elaborated even further in OECD consultations, particularly the rules relating to level 3 completion. Only at that point did it become possible to distinguish programmes at the ISCED 3C short level. Following the more detailed rules and the ISCED manual, these programmes came to be regarded as insufficient for level 3 completion and thereby, in the view of Eurostat, as an inadequate preparation for further study or the labour market. Statistics Netherlands was requested to make a contribution to the discussion on the value of the Dutch basic qualification. This contribution was made in two ways. Firstly, by checking cases in which programmes might have been allocated to the wrong category or at too low a level. A report of this investigation is presented in section 6.2. Secondly, by focusing on the considerations that had led to the allocation of basic vocational programmes to SOI 4.1. or ISCED 3C short, and on the recent discussion regarding a possible departure from this practice. An important argument in this context was the amendment of the WEB that came into effect from August 2003. In accordance with this amendment, access to basic vocational training will no longer be without admission requirements; students must at least have completed the VMBO basic vocational programme successfully. According to the ISCED classification criteria, the tightening up of the admission requirements for basic vocational training will lead to an allocation at the ISCED 3C level, instead of the ISCED 3C short level. This will lead to basic vocational training, our Dutch basic qualification, complying with the criteria for level 3 completion and thereby also, according to the interpretation of Eurostat with regard to the ISCED, as a fully fledged basic qualification for the labour market. The text in this chapter is based on CBS information supplied by Mies Bernelot Moens en Johan van der Valk, but is published here under the full responsibility of the editor (WH).

6.2 The assessment of the basic qualification in the EBB

The aim of Dutch educational policy is to have all pupils leave school with an adequate level of education. It implies among other things that they should be adequately trained to enter the labour market. The so-called basic qualification has been established at MBO 2 level or higher. Questions arose regarding

the evaluation of the basic qualification from an international perspective at the time of the OECD's publication of *Education at a Glance*. The Ministry of Education, Culture and Science accordingly commissioned research into the value of the basic qualification in the Netherlands. Statistics Netherlands (CBS) was also involved in this study. A report of the analyses undertaken in this context in relation to the National Labour Force Survey (Enquête Beroepsbevolking - EBB) is presented in this section.

6.2.1 Research questions and analyses

The discussion centres on what Eurostat regards as not entirely fully fledged programmes at MBO 2 level. These programmes were designated as level 4.1 in the national classification SOI'98 and as ISCED'97 3C short in the international classification. The point at issue was whether these programmes were or were not adequate as a basic qualification.
The Ministry of Education, Culture and Science requested that the following questions should be answered:

1 What programmes are regarded as belonging to the ISCED 3C category?
2 What programmes does the National Labour Force Survey distinguish within the ISCED 3C category?
3 What problems are encountered in the categorisation of programmes within ISCED 3C?
4 What necessary corrections in the National Labour Force Survey have consequences for figures such as those supplied to the OECD?
5 Is the figure stating that 10% of the population aged 24-64 have ISCED 3C as their highest level of educational attainment correct?

Not all of these questions are raised in this section. Reference is made to the documentation contained on the SOI'98 cd rom for answers to questions 1 and 3. The remaining questions are dealt with in this memorandum. Questions 4 and 5 are treated in combination.
The point of departure for the analysis is the SOI'98 classification and not the ISCED. SOI 4.1 is just about equivalent to the ISCED 3C short. There are some minor differences but these relate to very few of the programmes. It means that conclusions based on SOI 4.1 also apply to ISCED 3C short.

6.2.2 Programmes under SOI 4.1

The 2001 annual figures for the National Labour Force Survey have been used to confirm programmes that fall within the SOI 4.1 designation. The most common of these programmes is the tradesman's/retailer's certificate.

Also to be found relatively often in this classification are child rearing classes, nursery school teacher certificate A and hairdresser diplomas.
A large category within SOI 4.1. is taken up by modern apprenticeship programmes. This category accounts for more than a quarter of the almost 15,000 programmes offered at level SOI 4.1. A further analysis has been made of these programmes. The attempt has been made to gain an indication of where modern apprenticeship programmes end up. It emerges from table 6.1 that more than half of all modern apprenticeship programmes are designated as SOI 4.1. This rises to as high as 75% for elementary apprenticeship training programmes. The "secondary" modern apprenticeship is mainly categorised as SOI 4.2.

Table 6.1 Occurrence of modern apprenticeships

	Type of modern apprenticeship		
	Total %	**Elementary ma %**	**Secondary ma %**
SOI 4.1	57	75	5
SOI 4.2	40	25	89
SOI 4.3	3	0	6
Total	100	100	100
Absolute total	3.970	868	801

An examination was also made of where the KMBO programmes end up. This category accounts for 8% of the total number of programmes at level 4.1. From the 2001 figures it appears that programmes with the KMBO suffix are nearly all to be found within the SOI 4.1 category. This is approximately 95%. The remainder are allocated to SOI 3.

6.2.3 Programme level 4.1

Statistics Netherlands measures the population's levels of educational attainment by means of the National Labour Force Survey *(Enquête Beroepsbevolking - EBB)*. Three classifications are used at the present time: the SOI'78, ISCED'97 and SOI'98. This latter classification is not yet used for national figures on levels of educational attainment. The reason for this is that the practical interpretation of this classification still has teething troubles. This being so, figures are not yet fully accurate. Given that the ISCED'97 makes use of the same system, these figures are not completely accurate either.

The teething troubles relate particularly to the allocation of the highest level of educational attainment. The National Labour Force Survey records all educational programmes with a duration of six months or longer taken subsequent to primary school. The programme that represents the highest level of educational attainment among the programmes taken is then determined. This defines the level of educational attainment of the person concerned. According to SOI'98, the step that determines the highest level of educational attainment still contains a number of irregularities. Data entry personnel allocates SOI codes to the majority of the programmes on the basis of information requested in the National Labour Force Survey. The remaining programmes are coded automatically. An algorithm then determines the highest level of educational attainment according to SOI'78. The highest level of educational attainment according to SOI'98 (and ISCED'97) is then allocated by means of an automated system in which use is made of the SOI'78.* This results in problems regarding the SOI codes, with SOI'98 coming to contain more details than SOI'78. This is the case with vocational programmes designated as SOI 4. The distinctions short, medium and long do not in fact appear in the SOI'78. If an individual has completed more than one programme at the MBO level, this can result in a faulty allocation. The system was in fact designed in such a way that where more than one programme is studied at the same level, the programme with the highest numerical SOI alignment code is taken as representing the highest level attained in the majority of cases. It goes wrong if, apart from completing a regular MBO programme, an individual completes another short vocational programme with a higher alignment code than the regular programme. This happens frequently. The most frequent case in point concerns the tradesman's/retailer's certificate. This programme is categorised under SOI 4.1 (SOI'98 system). The programme has a higher alignment code than many of the regular MBO programmes. If an individual has also completed a fully fledged MBO programme with a technical, agricultural, transport or paramedical alignment, he or she will be wrongly categorised as having SOI 4.1 as the highest level of educational attainment.

In the first estimate it emerged that approximately 10% of 25-64-year-olds had SOI level 4.1 as the highest level of educational attainment. This level is in fact incorrect due to the reasons set out above. Statistics Netherlands carried out an assessment whereby a correction was made for this sequence effect in a number of programmes at level 4. The correction consisted of ensuring that where a longer programme had been completed at level 4, this programme would be earmarked as the highest level of educational attainment. Following this correction only 7% were allocated to SOI 4.1. Statistics Netherlands is now engaged in a review of the system used for allocating the highest level of educational attainment. The allocation of the highest level of educational attainment will in future take place on a fully automated

* This is a highly simplified description of the coding process.

basis. Under this new system, account will be taken of the fine detailing of MBO under the SOI'98: SOI 4. Longer MBO programmes will be regarded as representing a higher level than shorter programmes. The system is currently under development and is expected to become operational in 2003. This means that more accurate figures will become available from 2003 onwards. The correction will be applied with retrospective effect to the National Labour Force Surveys on 2000-2002.

To summarise, it appears that technical discrepancies can arise in the allocation of programmes to the SOI 4.1 level (which more or less corresponds to the ISCED 3C short level). The principal reason for this is the finer detailing to be found in SOI'98 as compared with SOI'78. Sometimes, those who have completed more than one MBO programme are allocated at too low a level, e.g. if the most recently completed programme was at a lower level than the previous programme. This often occurs for example in the case of tradesman's and retailer's certificates, which are often completed following a regular MBO programme. The percentage of 25-64-year-olds with a level SOI 4.1 programme (comparable to ISCED 3C short) as the highest level of educational attainment accordingly falls from 10% to 7%.

6.3 Allocation of basic vocational training in ISCED and SOI

6.3.1 ISCED allocation of basic vocational training in 1999

The outcomes for the Dutch programme level coded according to ISCED 1997 in the draft OECD publication *Education at a Glance* (2001) led to great agitation in policy circles in the Netherlands. These outcomes create the impression that levels of educational attainment in the Dutch population are lower than those in our neighbouring countries and that 10% fewer people managed to complete secondary education than during the period covered by the previous edition of the OECD publication. The Netherlands, it appeared, had very many inhabitants indeed who could only be regarded as premature school-leavers from an international perspective, given that their education did not fulfil the ISCED criteria for level 3 completion. A very large number of these had already completed a programme at WEB basic vocational training level, such as KMBO and part of the modern apprenticeship programme. The certificates issued on completion of these programmes however were not designated nationally as a basic qualification. A basic qualification was either one that gave access to higher education in the Netherlands or a vocational education qualification that provided good preparation for the labour market. Persons in possession of a basic qualification therefore were certainly not regarded as premature school-leavers in the national context. What then are the criteria for level 3 completion?

According to (OECD agreements regarding) the ISCED manual level 3 completion occurs when:

- A completed programme gives direct access to further studies at level 5 (tertiary/higher education). These include all programmes at ISCED 3A, 3B, 4A and 4B, i.e. programmes such as HAVO, VWO and long MBO/middle management programmes.
- A programme at ISCED 4C level is completed.
- Completed vocational programmes at ISCED 3C with a minimal duration of no more than one year shorter than the shortest programme that provides access to tertiary education.

Vocational programmes at the WEB middle management (ISCED 3A) level, -vocational training (ISCED 3C) and specialist programmes (ISCED 4C)- fulfil the requirements for level completion in any case. At the time when WEB programmes were fitted into the ISCED, i.e. prior to the creation of VMBO, the *admission requirements-free* basic vocational training course failed in the opinion of Statistics Netherlands to comply with the criteria for level 3 completion. The allocation of ISCED variables was subjected to internal audits within Statistics Netherlands and to audit by external parties. The consequences this would have for the presentation of statistical outcomes relating to educational levels in the Netherlands were not known at that time.

Why did basic vocational training fail to comply with the criterion for level three completion?
There were no admission requirements for basic vocational training. A pupil could start the programme in principle without even having completed the first year of VBO or MAVO. Basic vocational training has a duration of two to three years. On this ground alone, therefore, one could state that basic vocational training was in fact a C programme. The typical duration of an ISCED 2 programme is in fact eight or nine years cumulative from the start of ISCED 1 (year 3 of Dutch primary education). In the case of the Netherlands this means six years of primary education plus two or three years of secondary education.

On the allocation of basic vocational training to level 4.1 of the SOI 1998, following consultations with bodies including the ROA, LDC, Cinop and the Ministry of Education, Culture and Science, the basic assumption was adopted however that the programmes, most of which had a duration of two years, exceeded the level of VBO with regard to intrinsic educational level by a factor of one year. This formed the immediate reason for allocating basic vocational training to 3C after all and not to 2C, where it was assumed that only the final year could be allocated to 3C. The assistant programme continued to be allocated to 2C however.

Within 3C, programmes are considered to meet the criteria for level completion if the duration is not significantly shorter than that of the national 3A and 3B programmes, calculated from the start of level 3. The ISCED manual specifies "shorter" more specifically: i.e. more than one year. The Netherlands has no 3B programmes. The 3A programmes run from the beginning of level 3: VWO three years, HAVO two years, MBO (middle management programme) three or four years. Basic vocational training is then mostly three years shorter than the middle management programme, two years shorter than VWO and one year shorter than HAVO. According to the ISCED yardsticks however, HAVO fails to comply with the duration that would normally apply for access to higher education with a course duration of four years (HBO). This duration would need to be 12 years calculated from the start of level 1. In the case of HAVO the duration comes out at 6 + 5 = 11 years. It therefore seemed that comparing the duration of basic vocational training with that of HAVO was not a viable option. Also, comparison with the duration of the middle management programme was more logical since it was the vocational programme that gave access to 5A. Due to the duration difference of more than one year between basic vocational training, VWO and the middle management programme, and the fact that there were also arguments for allocating basic vocational training to 2C, it was judged in 1999 that there could be no question of level 3 completion in the case of basic vocational training and the other programmes in level 4.1 of the SOI.

Seen from the national perspective, approximately 10% of the population have completed a programme at SOI level 4.1 Just about all SOI 4.1 programmes are allocated to ISCED 3C without level completion. One or two programmes are allocated to level 3 (without destination letter), since the aim of the programmes is not directed towards preparation for the labour market or towards secondary or higher (vocational) education.
At the time of the previous ISCED, all programmes at SOI level 4, regardless of duration, were attributed to ISCED 3. There was no level completion criterion. Accordingly all programmes at SOI 4.1 were included. This was no longer the case following the introduction of ISCED 3C, which meant that approximately 10% less people came to achieve a completed level 3. These outcomes led to the question of whether Statistics Netherlands was not classifying programmes comparable to WEB basic vocational training at too low a level within ISCED and SOI.

6.3.2 Arguments in favour of level 3 completion for basic vocational training in 2003

In response to the emotions surrounding the outcomes for Dutch educational levels, the Ministry of Education, Culture and Science commissioned a study by the Max Goote Expertise Centre, the results of which are reported here.

The results of the studies show that the programmes were worthy of their basic qualification predicate in terms of labour market value. Those in possession of these qualifications find work more readily than do those with only MAVO/VBO. Comparisons with other European countries showed that the level of the basic vocational training programmes was certainly equal to or higher than the level of programmes classified as 3C with level completion in other countries. In a number of cases it was clear that the foreign programmes concerned were wrongly classified as giving level completion. It also seemed to be clear that we in the Netherlands succeed better than people elsewhere in training people to take up a fully fledged place in the labour market in a shorter minimal (throughput*)time. Based on the above therefore it would be possible to argue for an exception from the OECD that would allow programmes comparable to basic vocational training to be classified as level 3 completion.
More powerful is the argument from the recently introduced amendment to the WEB. This involves that admission to basic vocational training is no longer free of entrance requirements, but pupils must have successfully completed at least the basic vocational programme of VMBO. The ROC board is only empowered to grant an exemption from this requirement in exceptional cases. This means that starting from the 2003/2004 school year, basic vocational training will gain a four year preliminary course that fulfils the requirements of level 2. The minimum cumulative duration of the basic vocational training programme will then be two years longer than the duration calculated in 1999 based on access without admission requirements. Even the two year programme then becomes no more than one year shorter than a VWO programme at level 3. This complies with level 3 completion. Identical arguments for level 3 completion can be made for the predecessors of basic vocational training, the KMBO and the elementary apprenticeship training programmes under SOI 4.1, which had the same final objective broadly speaking, both on the ground of comparability with programmes elsewhere in Europe and with the basic vocational training programme following revision of the WEB in 2003.

6.3.3 Classification of basic vocational training in SOI 4.1

A question also advanced in discussions centring on the outcomes of the Max Goote Expertise Centre study was that of whether the classification of basic vocational training in the SOI 1998 was justified. This question was raised because the basic assumption was that most students start basic vocational training having already completed a MAVO/VBO programme. Where it comes to classification under the SOI however, the duration of the minimum required preliminary training is the criterion for classification within the SOI

* The number of lesson hours taught per year is often higher in the Netherlands than elsewhere.

levels. The level of common preliminary training programmes does not constitute a criterion for the classification of the subsequent programme. Additionally, the duration of the programme itself plays a role, particularly in the allocation of the sub levels. This second criterion was never applied even once to the WEB programmes themselves, but only to earlier comparable programmes (KMBO and modern apprenticeships). All basic vocational training programmes, WEB qualification level 2, are allocated as standard to level 4.1 of the SOI 1998; the WEB level 3 professional training courses, to 4.2 and the middle management and specialist programmes, WEB qualification level 4, to 4.3. Using this procedure, the best possible attempt was made to ensure that comparable programmes both old and new were all positioned within the same SOI sub level. What is clear is that the duration of the vocational training courses in the WEB programmes was much shorter than that of the corresponding programmes in the modern apprenticeship system. Different criteria were accordingly used for the WEB programmes than for the old vocational programmes. Based on the above therefore, there was no reason to change the classification of basic vocational training under SOI level 4.1. In the revised SOI 2003 on the other hand, a number of old programmes that were still classified at level 3 of the SOI in the original SOI 2003 were transferred to 4.1. This is because they had been found to be similar to the current basic vocational programmes. The criteria governing SOI 4.1 were modified slightly in the SOI 2003, such that all programmes within this category are now similar to the current basic vocational programmes, even if these old programmes had a shorter cumulative duration.

To summarise, the fact that the programmes at issue did not have entrance requirements formed the principal argument for classifying basic vocational training at the ISCED 3C short level (without level completion). On this ground it could even be argued that the programmes ought to be regarded as ISCED 2C programmes. Given the fact however that the content of the programmes exceeded that of VBO by at least one year, it was nevertheless decided that they should be classified as ISCED 3C short. On the ground of the results as they have been presented in this report, (programme difficulty, labour market opportunities, demonstrated skills) a unique position could be claimed for these programmes. Due to the recent changes to the WEB, however, the basic vocational training programmes are no longer without entrance requirements; a pupil must at least have completed the basic vocational programme in VMBO. This being the case, the requirements for level 3 completion have now been met. It can accordingly be argued with regard to the predecessors of the programmes that come under the new legislation that these programmes are equivalent to level 3 completion, on the one hand because to a very large extent they have identical objectives to those of basic vocational training, and on the other hand on the basis of the results presented in this report.

7 Conclusion and further research

The evaluation of the basic qualification

This study has focused on the following question:

> *"What is the value of the Dutch basic qualification, and particularly that of the level 2 programmes in vocational education, in both the national and international context?"*

The question was formulated by the Ministry of Education, Culture and Science due to the fact that that the OECD, particularly in the authoritative publication *Education at a Glance*, had failed to recognise programmes classified at the ISCED 3C short level (to which the Dutch level 2 programmes are attributed) as a fully fledged preparation for the labour market. For this, in the OECD's terms, at least "level 3 completion" is required. The ISCED 3C short programmes did not comply with this criterion. It meant that in that sense those in possession of such certificates were premature school-leavers.
The OECD was only able to make this statement when the Netherlands supplied data on levels of educational attainment achieved in greater detail. This more detailed supply of data was the consequence of the application of the ISCED 1997 to Dutch educational programmes.
The result of the application of the level completion criterion to ISCED 3C was that 10% more of the Dutch labour force became regarded as premature school-leavers from one year to the next. A major discontinuity had consequently taken place in the representation of educational attainment in the Dutch labour force. Moreover, the Dutch view that the basic qualification (basic vocational training/level 2 programme in vocational education) represents a fully fledged preparation for the labour market was not one shared by an authoritative body such as the OECD. A difficult pill to swallow, the more so in view of the fact that it affected a relatively large number of people.

The research question

The question was approached in four ways:

1 verification of the classification of programmes by Statistics Netherlands;
2 international comparison of programme duration, content and difficulty;
3 comparisons with the aid of independent skill measurement protocols (PISA, TIMSS, IALS);
4 comparison of the external yields of level 2 programmes with programmes immediately above and beneath them in terms of going on to further study, work and pay.

International programme comparisons

In the programme comparisons, programmes at the level of the Dutch basic qualification were compared to corresponding programmes in Germany, France, the Czech Republic and England. Examined were aspects such as cumulative duration on entry to lower secondary education, on transition to upper secondary education and on exit from basic vocational training (or a similar programme), the breadth of the curriculum in lower secondary education and the training intensity of the various national ISCED 3C programmes. The conclusion from this part of the study is that the basic qualification has a clear value from the international comparative perspective. Completion of the basic vocational programme leads to a relatively high cumulative programme duration and is preceded by a relatively broad first phase. The training intensity of the basic vocational programme is also reasonably comparable or well comparable to the three year ISCED 3C programmes in other countries. These programmes are also at a (significantly) higher level than the two-year ISCED 3C programmes in other countries.

The basic qualification and skill measurements

A direct comparison on the basis of skill measurements proved to be impossible, since the level of the basic qualification could not be distinguished in the studies concerned (TIMSS, IALS). Statements were possible regarding (upper) secondary education in general and regarding secondary vocational education in particular. Here accordingly it is mainly a question of "circumstantial evidence". The comparison countries were Germany, the Czech Republic, Sweden (TIMSS only), France (TIMSS only), the United Kingdom (IALS only), Flanders (IALS only) and Finland (IALS only).
The conclusion from this part of the study is that Dutch students with a background in (upper) secondary education come out relatively well in international comparisons based on (general) skill measurements. This holds good both for the labour force as a whole and for young people. Among the countries studied only Finland appeared to do (much) better than the rest. In general the differences in skills between those with a background in general education and those with a background in vocational education were (very) large. Only the Czech Republic escaped from this class distinction. Only Finland had managed to effectively reduce this large difference over recent years. Similarly here, Dutch people with a background in secondary vocational education, both adults and youngsters, did relatively well in the comparison, subject to the comment here again that Finland did better, even among the youngsters. The excellent position taken up by Finland in this comparison is striking. The relatively low position taken up by Germany on the comparison of skills of people with a background in secondary vocational education is the cause of some astonishment. Germany after all is the birthplace of vocational education.

Labour market perspectives for those with a basic qualification

In the section of the study that addresses the labour market opportunities of people with a basic qualification, the programmes at level 2 were compared with the programmes immediately below them (level 1 and VBO) and with those immediately above them (levels 3 and 4). The position taken up by programmes at level 2 in this comparison is an indication of the value of these programmes.

First to be examined in the comparison of the programmes was the likelihood of students going on to further study (participation in further education and the likelihood of premature abandonment of further study). Next to be looked into was entry into the labour market by school-leavers. The value of programmes to school-leavers in the labour market was examined on the basis of six indicators. These indicators related to the chance of finding paid work, the chance of finding permanent work, the chance of finding a full-time job, the chance of finding a job in the school-leaver's own direction of study or a related direction, the occupational level of the job and the gross hourly wage paid to school-leavers. These analyses were carried out separately for BOL and BBL. Account was also taken of the influence of gender, age, ethnicity, educational programme sector and the year in which the qualification was obtained.

Does a basic qualification in fact provide good opportunities in the labour market? This question can certainly be answered in the affirmative, based on the results. In the case of BOL, a programme at level 2 (the basic qualification) leads to a strong improvement in labour market position with respect to most of the indicators. This does not apply to all of the indicators. The chance of finding a permanent position is (significantly) improved if a level 3 programme is followed. Remarkable however is the fact that even a level 1 programme can sometimes lead to an improvement with respect to a VBO programme. This applies for instance to the chance of finding work and to hourly pay. The BBL programmes present an identical picture in the vast majority of cases (see chapter 5 for details).

Based on the results, we are therefore able to state that a BOL or BBL programme at level 2 -the Dutch basic qualification- provides better opportunities in the labour market than do programmes at a lower level. The basic qualification therefore has value.

The value of the basic qualification in less favourable times

The question is however whether this conclusion from a study undertaken in a period of economic boom is capable of standing up in a less favourable period for the labour market. In order to investigate this, the analysis described above was repeated, but this time compared with a cohort of school-leavers that entered the labour market in relatively less favourable conditions. The earlier analysis was also extended by mapping out the differences between programme sectors where the value of level 2 programmes was concerned. For this purpose, school-leavers in reference years 1999 and 2000, the reference years used in the earlier analysis (cohorts leaving in 1997-1998 and

1998-1999), were compared to school-leavers in reference years 2000 and 2002 (cohorts leaving in 1999-2000 and 2000-2001).
In the case of the BOL programmes, the BOL level 2 programmes continued to distinguish themselves positively from programmes at a lower level when labour market circumstances were less favourable. With BBL, the boundary line between programmes that offer a relatively good start in the labour market was less firmly established than for the BOL. This boundary line shifts towards higher-level programmes in a period of economic decline. Sector-specific differences between level 2 programmes in terms of labour market perspectives were not large.

Labour market perspectives from the international perspective

For the purpose of establishing the value of the Dutch basic qualification, the (labour market) position of young people completing a programme at the ISCED 3C short level was compared internationally. Examined was the extent to which the external yield of ISCED 3C short programmes differs between the Netherlands and a number of other European countries, including France and the United Kingdom. Data taken from the European Union Labour Force Survey (EU LFS) 2000 was used for this purpose.
The results showed that where preparation for the labour market is concerned, the largest differences occur between programme levels ISCED 2 and ISCED 3C short. This being so, the Netherlands was nicely in step with other European countries. When the level of occupational prestige achieved is examined, the largest differences manifest themselves between the ISCED 3C short and ISCED 3C long levels. Here again the Dutch situation was not really different from that of other countries. But when it came to chances of finding paid work, permanent work or full-time work, for the Netherlands in particular the boundary line lay between ISCED 3C short and ISCED 3C long for these labour market outcomes as well. In other words: programmes in the Netherlands at the ISCED 3C short level certainly prepared young people for the labour market, but whether these young people were thereby adequately equipped to make a start in this market remained an open question. Whatever the case might be, the relative improvement to be achieved by following a programme at the ISCED 3C short level in the Netherlands was slightly disappointing.
To state this more strongly: when we look at the EU LFS data, we are forced to conclude that for the Netherlands the largest relative improvement is to be found at the point of transition from ISCED 3C short to ISCED 3C long. If we look at the Dutch school-leaver data on the other hand, it appears that the largest relative improvement is to be found at the transition from level 2 (= ISCED 2) to level 3 (= ISCED 3C short) of the qualification structure. How can these differences be explained? There are three possible causes in outline: differences in the nature of the indicators, differences in reference year and differences in sample design.

The Dutch school-leavers data contained more indicators and better indicators for the labour market position of school-leavers than did the EU LFS. But probably more important was the fact that with a study based on school-leavers (such as RUBS) there could be no question of (differences in) work experience by definition. This allowed a good estimate to be made of the "pure" educational effect. In analyses based on the labour force or parts of the labour force (such as the EU LFS), (differences in) work experience by definition did play a part. That made it much more difficult to isolate the educational effect, although there were some methodological solutions for doing so. These ought to be elaborated further in future research.

The value of the basic qualification is certainly adequate

Based on the results of the three studies undertaken (international programme comparison, international comparison of general skills and national and international comparisons of labour market opportunities), it is impossible to conclude otherwise than that the Dutch starting qualification leads nationally to good opportunities in the labour market. The Dutch basic qualification also proves itself in international programme comparisons to comprise adequate levels of difficulty and intensity, productive of a relatively high level of general skills. All these are sufficient arguments in themselves for a reconsideration of the classification of the Dutch starting qualification at the 3C short level of the ISCED, at least if this level continues to be regarded as one that provides insufficient preparation for the labour market. With this classification question we also arrive at the final part of the study, the allocation of level 2 programmes by Statistics Netherlands.

An alternative allocation based on entrance requirements

In fact the discussion surrounding the value of the Dutch basic qualification found its inception in the more detailed supply of Dutch educational data to the OECD under the new ISCED'97 rules, which were then elaborated further in OECD consultations. Only then was it possible to distinguish the programmes at the ISCED 3C short level separately and for these programmes to be regarded as insufficient for level 3 completion under the new rules as further elaborated, and accordingly in the opinion of Eurostat as an insufficient preparation for further study or for entry to the labour market. CBS was requested to make a contribution to the discussion on the value of the Dutch basic qualification. That contribution was made in two ways. The first of these was by examining whether in some cases there might have been an instance of mistaken allocation or too low an allocation of programmes. The second was by focusing on the considerations that led to the allocation of basic vocational programmes to SOI 4.1, or in other words ISCED 3C short, and on the recent discussion regarding a possible departure from this practice.
It emerged that technical discrepancies can occur when determining the highest level of educational attainment achieved within level 4 of the SOI. As a result, the level of educational attainment has come out (too low) in a number

of cases at level 4.1 (which more or less coincides with ISCED 3C short) instead of 4.2 or 4.3. The main reason for this is the finer detailing of the SOI'98 as compared to the SOI'78. Situations have occurred where those who have completed more than one MBO programme were allocated at too low a level, if for instance the final programme to be completed was at a lower level than the previous programme. This occurs for instance in the case of the tradesmen's and retailer's diplomas, which are often completed subsequent to a regular MBO programme. The percentage of 25-64-year-olds with their highest level of educational attainment at the SOI 4.1 level (comparable to ISCED 3C short) thereby falls from 10% to 7%.

The principal argument for classifying basic vocational training at the ISCED 3C short level (i.e. without level completion) was the fact that these were programmes without entrance requirements. On this ground it could even be argued that the programmes ought to be regarded as ISCED 2C programmes. Given the fact however that the content of the programmes exceeds the VBO level by at least one year, it was nevertheless decided that they should be classified as ISCED 3C short. On the ground of results as they have been presented in this report (programme difficulty, labour market opportunities, demonstrated skills), a unique position could be claimed for these programmes. As a result of the recent changes to the WEB, however, basic vocational training is no longer without entrance requirements; a student must now at least have completed the basic vocational programme of VMBO. This being the case, the requirements for level 3 completion have now been met. It can accordingly be argued in respect to the predecessors of the programmes that come under the new legislation that such programmes are equivalent to level 3 completion, on the one hand because to a very large extent they have the same objectives as basic vocational training programmes, and on the other hand on the basis of the results presented in this report.

Empirical evidence or administrative action

What this amounts to is that the problem of the value of the Dutch starting qualification has been "administered away" to a certain extent. After all, as a result of the new entrance requirements, the level 2 programmes in the ISCED can now be classified at a higher level. Even so, it would be a highly unsatisfactory situation if the value of programmes, particularly from the international comparative perspective, were to be allowed to rise or fall on administrative grounds. This study remains valuable in that respect: it is not only the change in the law that leads to a higher valuation for the Dutch level 2 programmes, there is also now more than enough empirical evidence that these programmes deserve a higher valuation. Empirical evidence of this kind will probably need to play a greater role in the valuation of programmes in internationally comparative classifications such as the ISCED. That is not easy to achieve, and it is here that the contours of a future research programme begin to appear.

Further study

The programme comparisons undertaken show that a more accurate analysis of educational programmes in various countries that are now classified in the same category would be bound to bring essential differences to light. This has partly to do with (more or less politically inspired) interpretation differences with respect to classification rules. It most likely also has to do with the historical development of educational systems. The current (application of) ISCED as a classification and comparative system does not yet appear to be able to do full justice to the (intrinsic and structural) differences between programmes that are accommodated within the same category, particularly those in ISCED 3. Though the crux of the question centres on the degree to which it will be possible to optimise the classification of programmes further, given the burden of providing additional information that would entail for the countries concerned, there appears to be room for improvement. This will in any case require further consultations among members of the OECD's Network B work group. Priority will need to be given to the allocation of programmes to the ISCED 3 level in such consultations.

This study, as well as research carried out elsewhere (see Müller et al., 2003) has shown that the EU's Labour Force Surveys constitute an important data source for international comparative analysis of the transition from school to work. In this context it is particularly important to gain more insight into the structural factors capable of explaining cross-national differences between countries. It is desirable that more systematic research should be carried out into these areas.

Little data is currently available in general regarding the performance of participants and ex-participants in vocational education programmes in tests that measure skills, particularly in the internationally comparative perspective. Large-scale international assessment projects such as TIMSS, IEA and PISA focus mostly on younger participants. This is to be regretted, since it makes it difficult for statements to be made regarding the performance of this section of the education system and it remains unclear whether such performance can be benchmarked in an internationally comparative perspective. Vocational education has a specific problem in this respect. Large-scale internationally comparative skills assessments concentrate mainly on general skills such as reading, information processing, calculation/mathematical skills or problem solving. According to some, the skills that matter in vocational education are primarily work or sector-specific skills that are strongly context bound and which therefore hardly lend themselves at all to being used in international (or even national) comparisons. This is a topic for further discussion and research, given that it is more general skills that lie at the foundation of these more specific skills and because the labour market seems to be calling for general skills increasingly. It is to be recommended in any case that these assessments should be extended to include older age groups. ALL and PISA, both based on the same theoretical foundation, offer a good starting point in this respect.

It is a discussion that is also going on within the OECD at the present time. Research into the labour market perspectives of different programmes actually needs to be carried out on a continuous basis. This is already taking place in the Netherlands, founded on the school-leavers studies carried out annually by the ROA. This research relates to those leaving pre-vocational education (VBO), general secondary education (MAVO, HAVO, VWO), secondary vocational education (BOL, BBL), higher professional education (HBO) and university education. It would be interesting to check whether such studies are carried out in other countries, and if so, whether some form of coordination in this area might be possible. An inventory of the situation could be carried out from within Network B and a proposal could be developed for the harmonisation of sample design, questionnaires, etc.

In addition, extension of the current school-leaver research is conceivable when it comes to the question of the different labour market opportunities offered by the various programmes.
In this study for example no attention has been paid to the labour market position of school-leavers with or without a basic qualification over the longer term. In the RUBS school-leaver studies, school-leavers were interviewed eighteen months after gaining their diplomas. In this way a picture was given of the transition of school-leavers from education to the labour market. The effects of education over the longer term remained outside the scope of the study however. In addition to equipping school-leavers to make a start in the labour market, education also has the task of imparting competencies to school-leavers that will enable their further development so that continuing career development becomes a possibility. It would therefore be interesting to undertake follow-on research among school-leavers, five or ten years after they have gained their diplomas for example.
This would allow an impression to be created of the career development of school-leavers, facilitating an indication of the programmes that offer school-leavers durable career development. A follow-up survey similar to this has already taken place. ROA carried out a study in 1999-2000 among school-leavers who had left VBO or MAVO between five and seven years earlier. Comparisons were made in this study between those who after leaving VBO/MAVO went on to follow a BOL or BBL programme and those who did not choose a qualifying follow-up route (Van Eijs & Farag, 2002). Labour market opportunities for the three groups appeared to differ little, but there were of course differences in the quality of the work obtained. A striking outcome from this study was that school-leavers as a rule make a well considered choice of follow-up programmes: those who elect not to take a qualifying follow-up route did not regret this choice later. They indicated moreover that the counselling and information provided in school regarding continuation programmes had been more than sufficient. That would imply that there is little room for increasing the number of school-leavers going on to qualifying follow-up routes. It must be noted here however that the study in question

took place in a period of economic boom. It is desirable that this study should be repeated now that conditions in the labour market have become less favourable.

There is also the fact that in the RUBS study, only school-leavers who had actually obtained their diploma were interviewed. A number of pupils leave the programme without a diploma however (dropouts) and enter the labour market. MBO dropouts can be assumed to take up a position comparable to that of those who enter the labour market directly from VBO or MAVO. Data for this is available. Much less is known however regarding those who leave secondary education without any kind of qualification. Additional data would need to be compiled so as to gain insight into the labour market position of this group.

There is also the possibility that school-leavers who enter the labour market without a basic qualification will return to education and gain a basic qualification at a later time. The longitudinal study of VBO and MAVO school-leavers referred to earlier does indeed show that more than 11% of those who originally entered the labour market without further education later obtain a further education qualification. The main reason for this lack of information lies in the fact that statistics on the likelihood that those who left education without a diploma might subsequently return and qualify are poorly recorded. This has the consequence that it is not fully clear how many school-leavers leave education temporarily or permanently and how many later move back into education elsewhere. The advent of the pupil identification number will make it possible to assess the likelihood of this return to education more precisely. In the meantime, however, this likelihood can be estimated based on flow models.

In conclusion

This wish list for possible future research is without prejudice to the fact that in our view, based on the different study sections, a good impression has been gained of the value of Dutch vocational programmes at the basic qualification level; a value that is quite clearly present in terms of programme difficulty, general skills gained and opportunities in the labour market. These programmes are well able to withstand comparison with their equivalents abroad.

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Appendix I*

The value of the Dutch 'start qualification'

1 Background of the study

Within the context of the Dutch educational policy, the 'start qualification' is perceived as the minimum level of educational attainment that is required either for obtaining a satisfactory position ion the labour market, or to continue further studies. The aim of educational policy -at least for young people- is that no student will leave the education system without a 'start qualification'. The concept of a 'start qualification' is also used in the context of training of the unemployed or employed adults as well, though in that context obtaining such a start qualification is less used as a compelling principle. The 'start qualification' is rather pragmatically defined as equal to a level 2 qualification (the basic vocational training pathway) in the new national qualification structure for senior vocational education (see annex 1 for further clarification).

Until now, programmes leading to a start qualification were classified as being ISCED 3C-programmes (upper secondary education). This was the case for the old ISCED classification as well as the revised one from 1997. However, recently a distinction has been made within the ISCED classification (according to the systematics as reported in *Education at a Glance*) between ISCED 3C short and long programmes. According to the OECD systematics, short programmes, especially in the 3C category, concern programmes with a limited occupational orientation. Completion of ISCED 3C short programmes cannot be equalled with completion of upper secondary education. According to this systematics, one can only speak of 'level 3 completion' if it concerns programmes, which give access to ISCED 5 programmes or if it concerns programmes preparing for the labour market with a duration of at least three years.

Parallel to this change, the Netherlands started recently with delivering less aggregated figures for the various educational programmes at different levels. For the programmes resulting in a start qualification this means that they are now classified as ISCED 3C short programmes. The more far stretching implication is that it influences the presentation of Dutch data in the international comparative educational indicators. On the one hand, due to the more

* Appendix to chapter 3.

detailed data delivery, presently 10% of the adult population (25-64 years old) in the Netherlands is now classified as 'non level 3 completers' and with that as dropouts from the education and training system. Given the aim of the Dutch educational policy outlined above, this is slightly painful from a political perspective. Moreover, since it results in a substantial discontinuity in the presentation of Dutch data, e.g. in *Education at a Glance*. On the other hand, there appears to be a difference in interpretation. Whereas Dutch policy concerning the start qualification indicates that this level is the minimum requirement for successful labour market entry, the OECD concept of 'level 3 completion' implicitly seems to say that more is needed for labour market entry. From the Dutch perspective, of course, this is an issue to be discussed.

For the Dutch Ministry of Education, Culture and Sciences, this has been the motivation for assigning a research project to be carried out jointly by the Max Goote Knowledge Centre (MGK), the Research Centre for Education and the Labour Market (ROA) of Maastricht University and the University of Twente, Center for Applied Research on Education (OCTO). The core question of this project is:

What is the 'value' of the Dutch level 2 qualification, or -framed otherwise- what is the 'value' of the Dutch start qualification both in a national and an international context?

Several research activities will be undertaken in the context of this project. The MGK will perform a secondary analysis of the IALS data, in order to get a relative indicator for the value of ISCED level 3 (vocational) programmes (in terms of providing people with literacy proficiency). ROA will perform secondary analysis on the data from their national school leavers survey and on data from the international Labour Force Survey (LFS), in order to get insight in the external rate of success of the Dutch level 2 programmes (Dutch qualification structure) in comparison with similar programmes in other countries. The contribution of OCTO concerns a programme comparison, which will be described in more detail in the next section.

2 International comparison of vocational education programmes

Aim and background of the comparison

The aim of the international comparison of vocational education programmes, is to get a better understanding of the substantial differences or similarities of ISCED 3C short programmes in the Netherlands, France, Germany, the Czech Republic and the UK (with the focus on England). For the time being, ISCED 3C short programmes are interpreted as programmes with a duration of three years or less.

Starting point for this comparison is the work OCTO has undertaken in the period July 1999-March 2000 for the OECD in the context of the upper secondary education classification study. In this study, the upper secondary education systems of part of the OECD Member Countries have been compared on the following characteristics:

- programme orientation (general, pre-vocational, vocational);
- destination for which the programme prepares (be it further (tertiary) education or the labour market);
- duration of the programme and cumulative duration up from the start of compulsory education (also including the typical age range of students enrolled, grades covered);
- position within the national qualification 'building' (e.g.: does it concern a first ISCED 3 qualification or an ISCED 3 qualification that is only accessible after having obtained another ISCED 3 qualification);
- teaching/learning arrangements (school-based, work-based, internships etc.).

A comparison of ISCED 3C short programmes will provide a first indication of possible differences or similarities in duration, content and 'weight' of the programmes. Such a comparison is, however, not sufficient in the context of the present project. On the one hand, it will be necessary to update the information collected in the OECD classification study. On the other hand, additional information is needed in order to judge the 'weight' of the programmes and the strength of their labour market orientation. This additional information might concern:

- the substantial structure of the programmes in terms of the percentage of total curricular time devoted to general versus occupational subjects (or modules);
- the time actually devoted to teaching/learning or practical training per week;
- the dispersion of time over learning in school, practical training within school premises and practical training within an enterprise (or simulated work environment);
- flexibility and modularisation (in particular the question to what extent students can determine, according to their own preferences, the content of their learning pathway);
- the actual requirements for enrolment in the programmes (this means: not the global requirements as can be derived from the ISCED-mappings, but the level of educational attainment with which most students in day-to-day practice enter the programmes);
- data with regard to the destination of the students (which part enters the labour market and which part continues in further education and training).

Experiences from the OECD classification study learned that it is rather difficult to obtain such detailed information for all ISCED 3-programmes. In the OECD classification study, for instance, attention is paid to the issue of time dispersion over school-based an work-based learning, but it proved to be difficult to draw firm conclusions with regard to this issue. Within countries, there appeared to be differences according to programmes and specialisations (even within a particular programme category). At the same time, it appeared that some countries (e.g. the Netherlands, France) know the possibility of obtaining a qualification through different pathways, with the particular pathway being the determinant for the amount of time spent on school-based versus work-based learning. The conditions for performing the classification study did not allow for a more detailed comparison of a limited set of programmes on this issue.

Design of the international programme comparison

In order to compare ISCED 3C short programmes in the Netherlands, the UK, the Czech Republic, France and Germany, the following design will be used. In the first stage a preliminary comparison will be made on the basis of already available material. This preliminary comparison should result in a clear picture of the additional information that still needs to be collected or to be updated. The next step is to include a set of programmes from the technical sector, the health care and social services sector, and from the economic sector (trade and administration) that will be analysed more in-depth. Appendix IV provides the list of programmes to be included in the comparison.

Given that classifying programmes according to the ISCED categories will always implicate a certain national interpretation of the categories and classification rules, it will be attempted to collect also some information with regard to programmes that are 'near' to the set of selected, related 3C short programmes. These 'near' programmes concern programmes at levels ISCED 2, ISCED 3C long, and ISCED 3A and 3B.

Apart from data collection on the basis of already available material (including material that can be found on internet), interviews will be held with relevant experts and key informants within the five countries. This approach is adopted because, as indicated, experiences from the OECD classification study learned that in general it is difficult to obtain rather detailed information with regard to vocational education programmes. More specifically, these experiences learned that interviews as well as document analysis 'at the spot' form a more efficient and effective strategy, than trying to collect the required data through indirect contact (phone, e-mail).

Appendix II

Chapter 5 tables

Table II.a **Relative likelihood of finding paid work, 15-64-year-olds, logodds ratios[a]**

Programme level	NL	FR	UK	GR	ES	IT
ISCED 1-2	-0.54	-0.71**	-0.58**	0.14	0.01	-0.62**
ISCED 3C short	0.00	0.00	0.00	0.00	0.00	0.00
ISCED 3C long	0.37	N/A	0.41*	0.22	0.24	-0.24
ISCED 3B	N/A	0.26	N/A	-0.03	0.25	-0.69
ISCED 3A	0.06	0.12	0.54**	0.13	0.58	-0.13

[a] = corrected statistically for age and gender;

* = $p < 0.05$; ** = $p < 0.01$ (test of differences with respect to ISCED 3C short; per country);

Source: Eurostat, EU LFS 2000, own calculations.

Table II.b **Relative likelihood of finding permanent work, 15-64-year-olds, logodds ratios[a]**

Programme level	NL	FR	UK	GR	ES	IT
ISCED 1-2	-0.40*	-0.34**	-0.03	-0.82**	0.03	-0.37*
ISCED 3C short	0.00	0.00	0.00	0.00	0.00	0.00
ISCED 3C long	0.25	N/A	0.05	0.04	0.51	-0.42
ISCED 3B	N/A	0.09	N/A	-0.42	0.46	-0.56
ISCED 3A	0.00	-0.08	-0.03	0.02	0.89	-0.15

[a] = corrected statistically for age and gender;

* = $p < 0.05$; ** = $p < 0.01$ (test of differences with respect to ISCED 3C short; per country);

Source: Eurostat, EU LFS 2000, own calculations.

Table II.c Relative likelihood of finding full-time work, 16-64-year-olds, logodds ratios[a]

Programme level	NL	FR	UK	GR	ES	IT
ISCED 1-2	-0.22	-0.34**	-0.34**	-0.97	0.28	-0.09
ISCED 3C short	0.00	0.00	0.00	0.00	0.00	0.00
ISCED 3C long	-0.08	N/A	-0.01	-0.42	0.17	0.13
ISCED 3B	N/A	0.41	N/A	-0.65	0.50	-0.06
ISCED 3A	-0.03	0.12	0.33**	-0.42	0.83	0.21

[a] = corrected statistically for age and gender;

* = p < 0.05; ** = p < 0.01 (test of differences with respect to ISCED 3C short; per country);

Source: Eurostat, EU LFS 2000, own calculations.

Table II.d Difference in occupational prestige achieved, 15-64-year-olds, status points[a]

Programme level	NL	FR	UK	GR	ES	IT
ISCED 1-2	-3.70**	-3.50**	-6.88**##	-4.17**	-3.89	-6.18**##
ISCED 3C short	0.00	0.00	0.00	0.00	0.00	0.00
ISCED 3C long	4.51**	N/A	3.05**#	10.85**##	10.54*	8.43**##
ISCED 3B	N/A	6.39**	N/A	1.97	0.93	6.93**
ISCED 3A	6.78**	9.14**##	2.97**##	5.21**	8.06**	7.65**

[a] = corrected statistically for age and gender;

* = p < 0.05; ** = p < 0.01 (test of differences with respect to ISCED 3C short; per country);

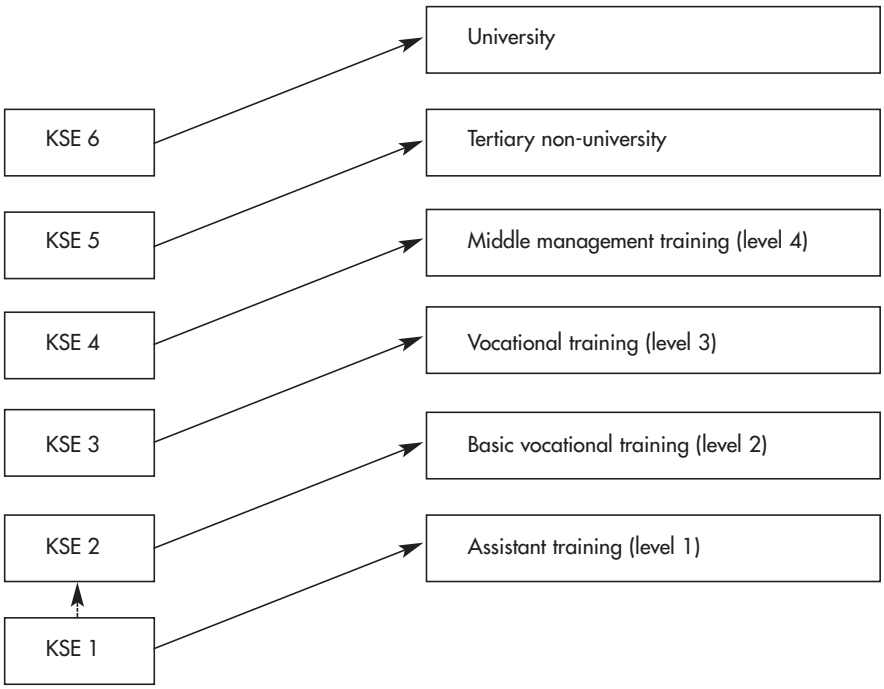
= p < 0.05; ## = p < 0.01 (test of differences with respect to the Netherlands, per programme level);

Source: Eurostat, EU LFS 2000, own calculations.

Appendix III

The Dutch qualification structure for senior vocational education in relation to the qualification structure for adult education

Figure III.1 **Qualification structure education in relation to the qualification structure vocational education and training**



KSE stands for qualification structure adult education. Tertiary non-university education and university education fall outside the scope of the qualification structure for senior vocational education and training.
The qualification structures for senior vocational education can in principle

comprise vocational training programmes (each qualification being treated as a programme) at four different levels:

Level 1: the assistant training programmes preparing for simple operational functions; this training takes 0.5 to 1 year;

Level 2: the basic vocational training preparing for operational functions (at the level of the starting qualification), which lasts for 2 to 3 years;

Level 3: the vocational training programmes preparing for independent performance of a vocation; this training lasts for 2 to 4 years;

Level 4: this level comprises the middle management training programme and the training for specialists; the first training programme lasts for 3 to 4 years and the second one 1 to 2 years after finishing level 3, both preparing for fully independent performance of the vocation, aiming at developing either broadly applicable skills or specialist skills.

Each training programme or qualification is split up in separate partial qualifications that are awarded separately as well. The reasoning behind this is twofold. If students leave vocational education preliminary, they still have some credits with which they can enter the labour market. The fact that the different qualification levels build upon each other (e.g. same basic partial qualifications in level 1 and level 2 programmes) might stimulate students to continue their training up to a higher level. This is considered especially stimulating for those students with an increased risk of being low achievers or dropouts. Although the educational institutions or regional training centres (ROCs after the Dutch abbreviation) are free to decide in which way the final learning targets will be reached, it should be taken into account that these 'partial qualifications' -often presented as modules- do have a regulatory function in more or less setting the sequence of modules and amount of time spent per module (in that sense replacing the former subject structure and timetable and its regulatory function).

With the introduction of the new qualification structures in August 1997, the former distinction between school-based senior vocational education (including the short-term courses) and the apprenticeship training has been abolished as well. The distinction made in the Law on Vocational and Adult Education (WEB after the Dutch abbreviation) is the one between a 'school-based' and a 'work-based' learning route. In the school-based learning routes between 20% to 59% of the total curricular time should be devoted to 'practical training' (either on-the-job or in another form, though some on-the-job training is expected to be included), while in the work-based learning route more than 60% of total curricular time should be devoted to practical training. In principle all qualifications (or programmes) are offered via both pathways and the assumption is that both pathways are of equal standing with an equal parity of esteem.

Appendix IV

List of programmes to be included in the in-depth international programme comparison

- Sales worker (or sales assistant)
- Office worker (or assistant)
- Moulding worker
- Metal Machining Operator CNC
- Arc Welder
- Scaffolder
- Bricklayer
- Plasterer
- Painter
- Kitchen articles mechanic (tumble dryer, washing machines etc.)
- Service worker ICT (information and communication technology)
- Receptionist
- Cook
- Baker (bread)
- Operator A (processing industry)
- Health care assistant
- Assistant social service/care
- Hairdresser
- Maintenance mechanic fitting/plumbing
- Assistant heating engineer

List of abbreviations used

A level	Advanced level
ALL	Adult Literacy and Life skills
AS level	Advanced subsidiary level
BacGen	Baccalauréat Général
BacPro	Baccalauréat Professionnel
BacTechno	Baccalauréat Technologique
BBL	Beroepsbegeleidende leerweg (Apprenticeship Day Release Course)
BBO	Basisberoepsopleiding (Basic Vocational Training)
BEP	Brevet d'études professionnelles
BiBB	Bundesinstitut für Berufsbildung
BMA	Brevet des métiers d'art
BMBF	Bundesministerium für Bildung und Forschung
BOL	Beroepsopleidende leerweg (Vocational Training Course)
BP	Brevet Professionnelle
BT	Brevet Technicien
BTS	Brevet de Techniciens Supérieurs
Bve	Beroepsonderwijs en volwasseneneducatie (Vocational and Adult Education)
CAP	Certificat d'aptitude professionnelle
CBS	Centraal Bureau voor de Statistiek (Statistics Netherlands)
Cedefop	Centre Européen pour le Développement de la Formation Professionelle
CFA	Centre de Formation d'Apprentis
Cinop	Centrum voor Innovatie van Opleidingen (Centre for Innovation in Educational Programmes)
CREBO	Centraal Register Beroepsopleidingen (Central Register of Vocational Courses)
DUT	Diplôme Universitaire Technologique
EBB	Enquête Beroepsbevolking (National Labour Force Survey)
EU LFS	European Union Labour Force Survey
EU	European Union
Eurostat	EU Statistics Bureau
EVC	Erkennen van Verworven Competenties (Recognition of Acquired Competencies)
GCE	General Certificate of Education
GCSE	General Certificates of Secondary Education
GNVQ	General National Vocational Qualification
HAVO	Hoger algemeen voortgezet onderwijs (Senior General Secondary Education)
IALS	International Adult Literacy Survey
ILO	International Labour Organisation

ISCED	International Standard Classification of Education
ISCO	International Standard Classification of Occupations
KMBO	Kort middelbaar beroepsonderwijs (Two Year Short Secondary Vocational Education Programme)
KSB	Kwalificatiestructuur Secundair Beroepsonderwijs (Secondary Vocational Education Qualifications Structure)
LFS	Labour Force Survey
Llw	Leerlingwezen (Modern Apprenticeship Programme)
MAVO	Middelbaar algemeen voortgezet onderwijs (Junior General Secondary Education)
MBO	Middelbaar beroepsonderwijs (Secondary Vocational Education)
MC	Mention Complémentaire
MCK	Maatschappelijke Culturele Kwalificatie (Socio Cultural Qualification)
MGK bve	Max Goote Kenniscentrum voor beroepsonderwijs en volwasseneneducatie (Max Goote Expertise Centre for vocational education and adult education)
NQF	National Qualifications Framework
NTO	National Training Organisation
NVQ	National Vocational Qualification
OCTO	Onderzoekcentrum Toegepaste Onderwijskunde (Applied Educational Research Centre)
OCW	Onderwijs, Cultuur en Wetenschap (Ministry of Education, Culture and Science)
OECD	Organisation for Economic Co-operation and Development
PISA	OECD Programme for International Student Assessment
QCA	Qualification and Curriculum Authority
ROA	Researchcentrum voor Onderwijs en Arbeidsmarkt (Education and Labour Market Research Centre)
SBO	Secundair beroepsonderwijs (Secondary Vocational Education)
SOI	Standaard onderwijsindeling (Standard Classification of Educational Programmes)
TIMSS	Third International Mathematics and Science Study
VMBO	Voorbereidend middelbaar beroepsonderwijs (Pre-vocational Secondary Education)
VCE	Vocational Certificate of Education
VBO	Voorbereidend beroepsonderwijs (Pre-vocational Education)
VWO	Voorbereidend wetenschappelijk onderwijs (Pre-University Education)
WEB	Wet educatie en beroepsonderwijs (Vocational Education and Adult Education Act)
WRR	Wetenschappelijke Raad voor het Regeringsbeleid (Advisory Council on Government Policy)

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Dr. T.F. (Jittie) Brandsma has been involved in various European projects on initial and continuing vocational training since the early 1990s and co-ordinated the TSER project on effectiveness of labour-market oriented training for long-term unemployed, the project on 'Classification of Training Provisions' (LEONARDO) and the LEONARDO surveys and analysis project on 'New design tools for occupational profiles'. She has been involved in the second European Continuing Vocational Training Survey and in work undertaken by CEDEFOP (e.g.: Developments in lifelong learning; contributed to the second report on vocational training research in Europe; a comparative study on the consequences of decentralisation and marketisation in VET in Sweden and the Netherlands). On a national level she has recently been involved in the national evaluation of the Dutch law on adult and vocational education, which was implemented in 1996. She is co-ordinator of the European FORUM network on VET and member of the Board of VETNET, one of the networks of EERA (European Educational Research Association).

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